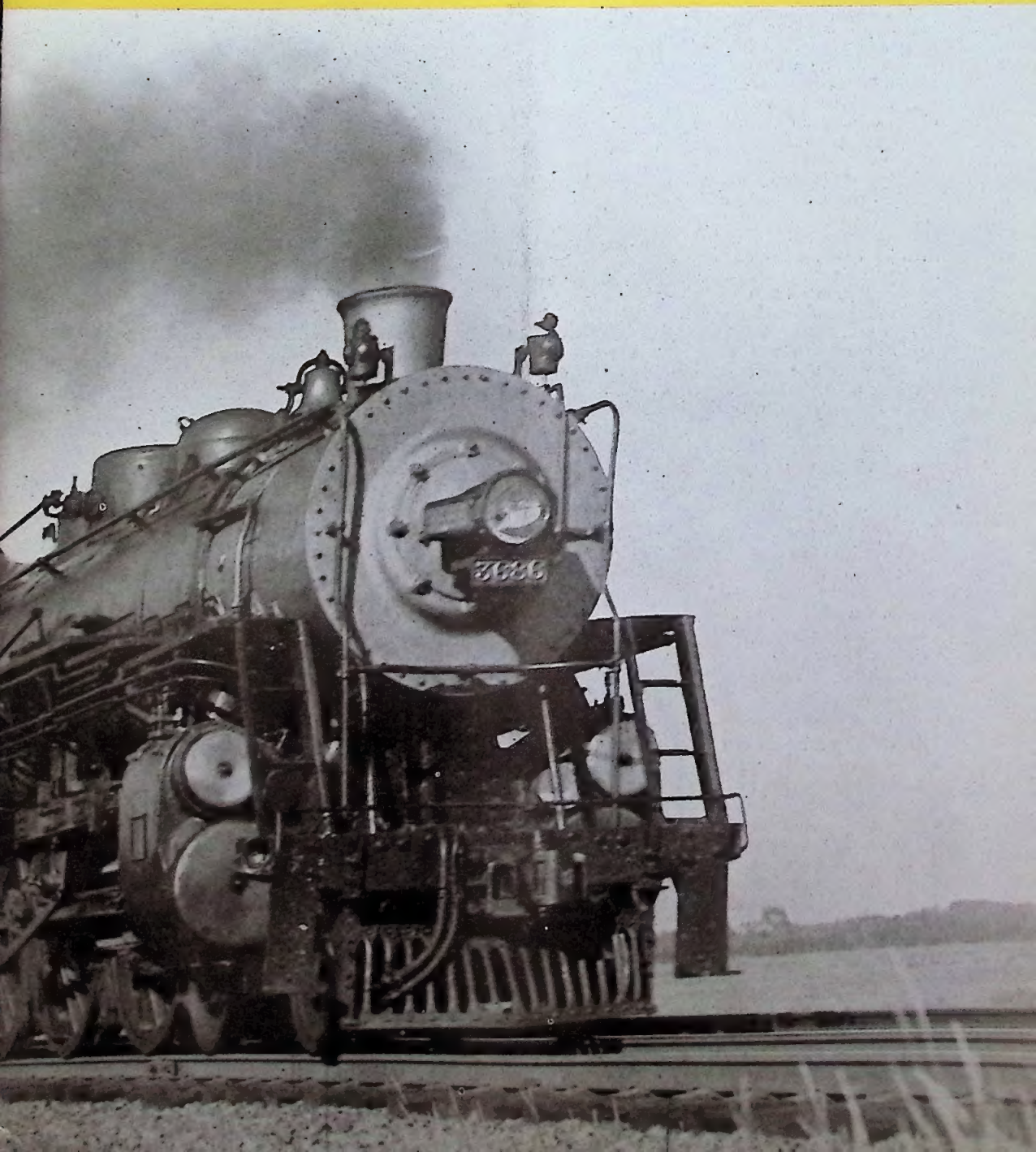
Trains

August
1943

25¢



August, 1943

Trains

Volume 3 Number 10

Road of New Ideas. *The Delaware & Hudson.* - 4

Rails Across the Pacific. By W. Lamoni Carr. - - 6

Down East. *Photos.* - - - - - 22

Photos and Specifications of Recent Locomotives. 24, 25

Northwestern Pacific Gold-Spike Special. *Photo.* - 26

Troop-Train Rider. *By William Forsythe.* - - 28

The New Haven's Navy. *New York Harbor "bridge."* - 32

The Jim Hill Country. *By George Cecil Cowing.* - 35

Locomotive Cartoon Quiz. *By John Kalbach.* - - 41

Flood Scenes Near Peoria. *Illinois River flood.* - - 42

Railroads in the Southeast. *Photos.* - - - 44

Ten-Wheelers of 1890's. *By the late Arthur Curran.* - 46

The Man in the Tower. *By Edward Hungerford.* - 48

THE trains are crowded. This isn't just O. D. T. propaganda originating with government men who only see the exceptional conditions around Washington. The trains really are crowded, everywhere. Of course you can pick out some branch-line runs with only two or three passengers, or some empty coaches on mainline trains, but conditions as a rule are hard to foretell, and with the best of intentions a rail traveler may at any time in any part of the country be just the one passenger who makes a train badly overloaded.

If you don't need to travel, don't. Save that vacation for after the war and put the money into war bonds now. If you do need to travel, consult a railroad passenger agent first and try to go at the less crowded midweek periods and on the less popular trains. But don't fool yourself that this will save you entirely from discomfort or keep you from adding to a bad situation. The trains are doing a tremendous job, with no new equipment and much existing equipment assigned to troops. They will carry efficiently the necessary travel, but they cannot also carry pleasure travelers.

Fourth of July traffic on practically all roads set new high records. In most cases every available piece of equipment was in use. Congestion on the whole was not as bad as had been expected, and an unusual increase as early as June 28 and 29 indicated that many people were heeding O. D. T. advice to avoid the weekend.

The Canadian National opened its new Montreal terminal July 14. This station has been building for a number of years, and is a modern, completely electrified station at the east end of the tunnel under Mount Royal. It takes the place of Bonaventure Station, although the old terminal will be used for the duration to accommodate troop trains, limited suburban service, and special moves. A complete description of the new terminal will appear later in TRAINS.

Again the government has turned to the railroads for an able executive to handle a wartime job. Carl E. Newton, president of the C&O, has been appointed to operate the coal mines for the government. It will be recalled that William Jeffers, boss of the rubber program, is UP president.

To permit maximum use of passenger equipment, the Pennsylvania Railroad has assigned a corps of women to cleaning cars en route. These women, smartly uniformed, work on 120 principal through trains. They go through the cars unobtrusively collecting discarded reading matter and other litter and otherwise straightening up, sweeping, and dusting. At designated stops they leave the trains and return on other trains in the opposite direction. Less time is now needed for terminal cleaning and cars can be kept moving more miles per day. The clockers between New York and Philadelphia are often turned now in a matter of minutes and sent right back.

The Yosemite Valley Railroad [April Trains] has lost its principal source of traffic with the closing and dismantling of the Yosemite Sugar Pine Lumber Company, and this may mean the abandonment of the railroad, a line which has probably carried more celebrities than any other.

The Germans have also built some austerity wartime locomotives. These Nazi jobs were originally designed for use in the severe climate of occupied Eastern Europe. The cab is entirely closed and the gangway to the tender is covered with a concertina passage. Crews were expected to work long shifts, and armchairs are provided for engineer and fireman, as well as a hammock for rest.

A. C. Kalmbach.

ANNUAL SUBSCRIPTION, DIRECT BY MAIL, $2.50 in U. S. A., Central, and South America; $3.00 elsewhere.

Entered as second-class matter Oct. 11, 1940, at the post-office at Milwaukee, Wis., under the Act of March 3, 1879.

Copyright 1943 by Kalmbach Publishing Co. Title registered as trademark.

PUBLISHED MONTHLY BY KALMBACH PUBLISHING CO. 1027 N. 7th St. Milwaukee, Wis., U. S. A.

CONTENT - - A. C. Kalmbach
PRESENTATION - Linn H. Westcott
COORDINATION - Willard V. Anderson
RESEARCH - - J. C. O'Hearn
PRODUCTION - Robert J. Fakler
BUSINESS - - Henry H. Kirtland

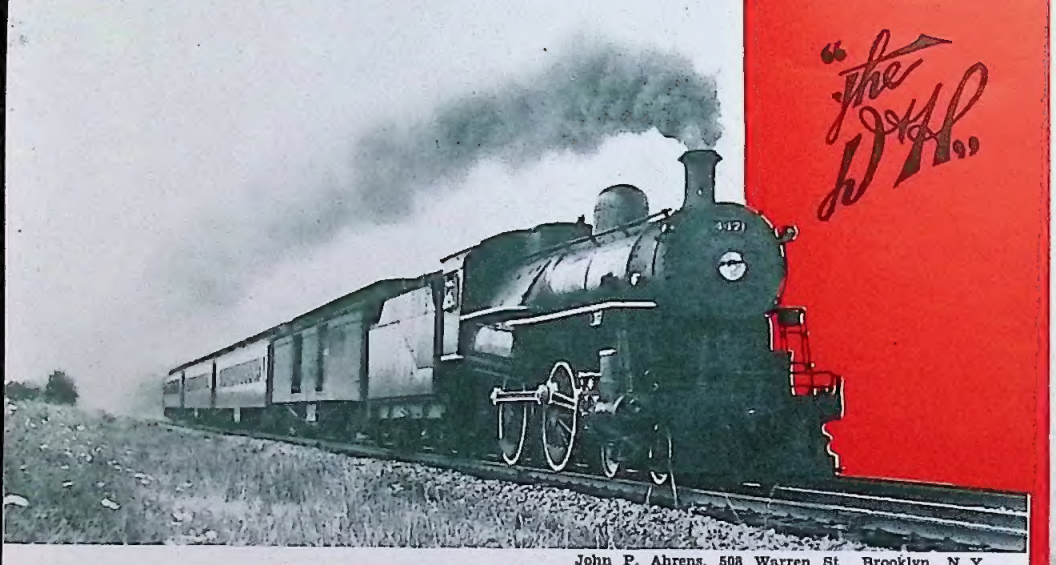
S. G. Morley, 2635 Etna St., Berkeley, Calif

Steeped in the lore of the Sierra gold country.

"The Nevada County Narrow Gauge is dead. Long live the Nevada County Narrow Gauge." Out of the American River Valley, at Colfax on the Southern Pacific main line, northward over deep Bear River Gorge, to the gold-mining towns of Grass Valley and Nevada City ran a three-foot-gauge railroad which was abandoned a year ago but will live on in the memories of Western railfans forever.

It was not only that the Narrow Gauge's line threaded some of the finest scenery extant. It was not only that personal relationship always engendered by a short line. For the history of the Nevada County Narrow Gauge was practically legendary. Old-timers tell of the committee of 20 local citizens who pooled their capital to build the road, and how they pulled out simultaneously not long after because they had forebodings that some day a train might crash from the high Bear River trestle (much higher and longer than the one shown above). No train ever did come this cropper. Old-timers tell also how Joe Dyer, a Colfax youth, started as a section hand on the Narrow Gauge, and how he eventually became vice-president in charge of operations for the great Southern Pacific, and retired only recently. And they tell of John and Sarah Kidder and their mansion in Grass Valley. John ran the Narrow Gauge until his death in the early years of the century, and then Sarah took over, perhaps the first woman railroad president.

But the trucks and buses came and handled to better advantage the express and passengers. The heavy freight was the railroad's, but the mines curtailed their operations and the freight was less and less. Came wartime scrap prices and the need for narrow-gauge cars and locomotives for military service, and the railroad was fed to the great god Mars. But those who rode the little wooden coaches through the Sierra forests and over the high Bear River trestle will always remember.



"the D&H"

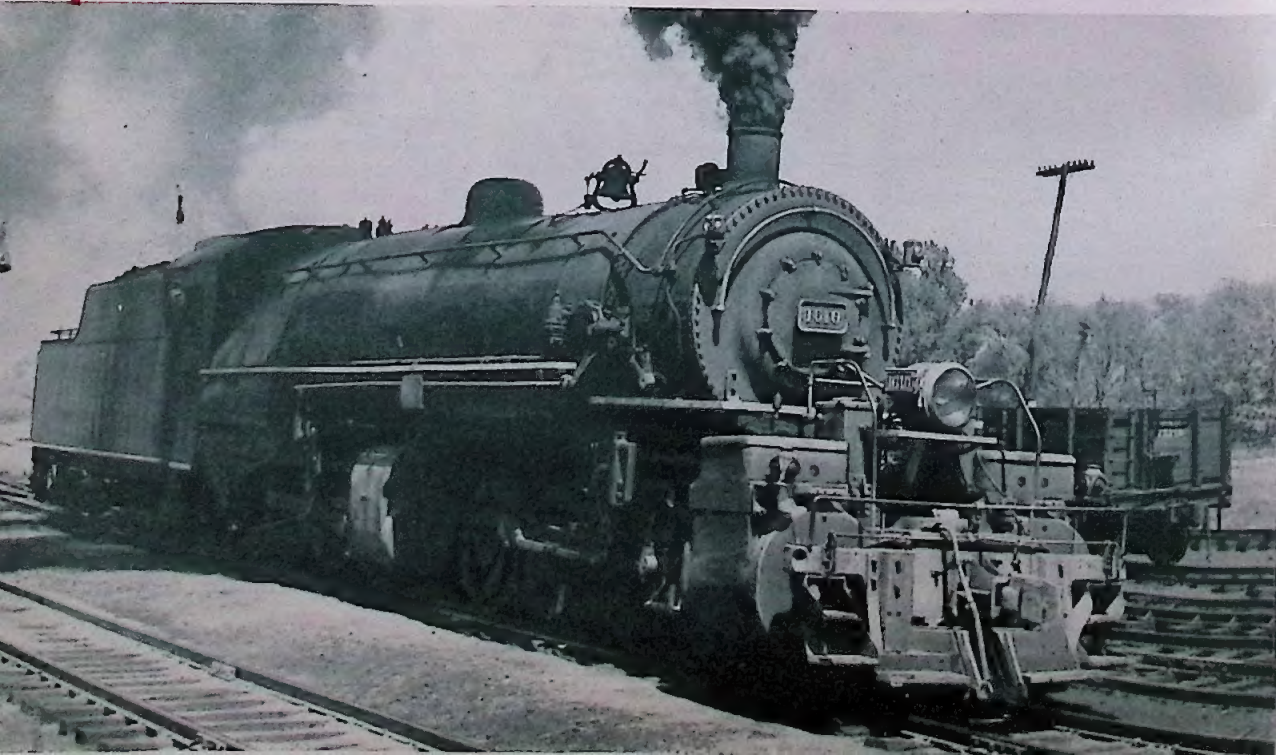
John P. Ahrens, 508 Warren St., Brooklyn, N. Y.

Road of New Ideas

★ The Delaware & Hudson is small but potent.

THE Delaware & Hudson is not a large railroad. It operates but 846 miles in all. But it has attracted attention all out of proportion to its size by its new developments in locomotives, its espousal of continuous welded rail, and the individualistic lines of its motive power.

The first locomotive in the new world was the *America,* built by Robert Stephenson & Company for the infant D&H and landed in New York on January 15, 1829. The record is incomplete, but apparently this locomotive was never operated on this side of the ocean. The



Warren G. Fancher; Railroad Photographs, 47 Royal St., Allston, Mass.

Stourbridge Lion, however, came from England five months later and was operated at Honesdale, Pa., on the D&H, August 8, 1829, the first locomotive to turn a wheel by steam power in this country.

At that time the D&H railroad was some 16 miles of level track and inclined planes built as an accessory to a coal-carrying canal, a means of getting over the Moosic Mountains. The railroad soon became a major activity in its own right, although the controlling Delaware & Hudson Company still owns coal mines.

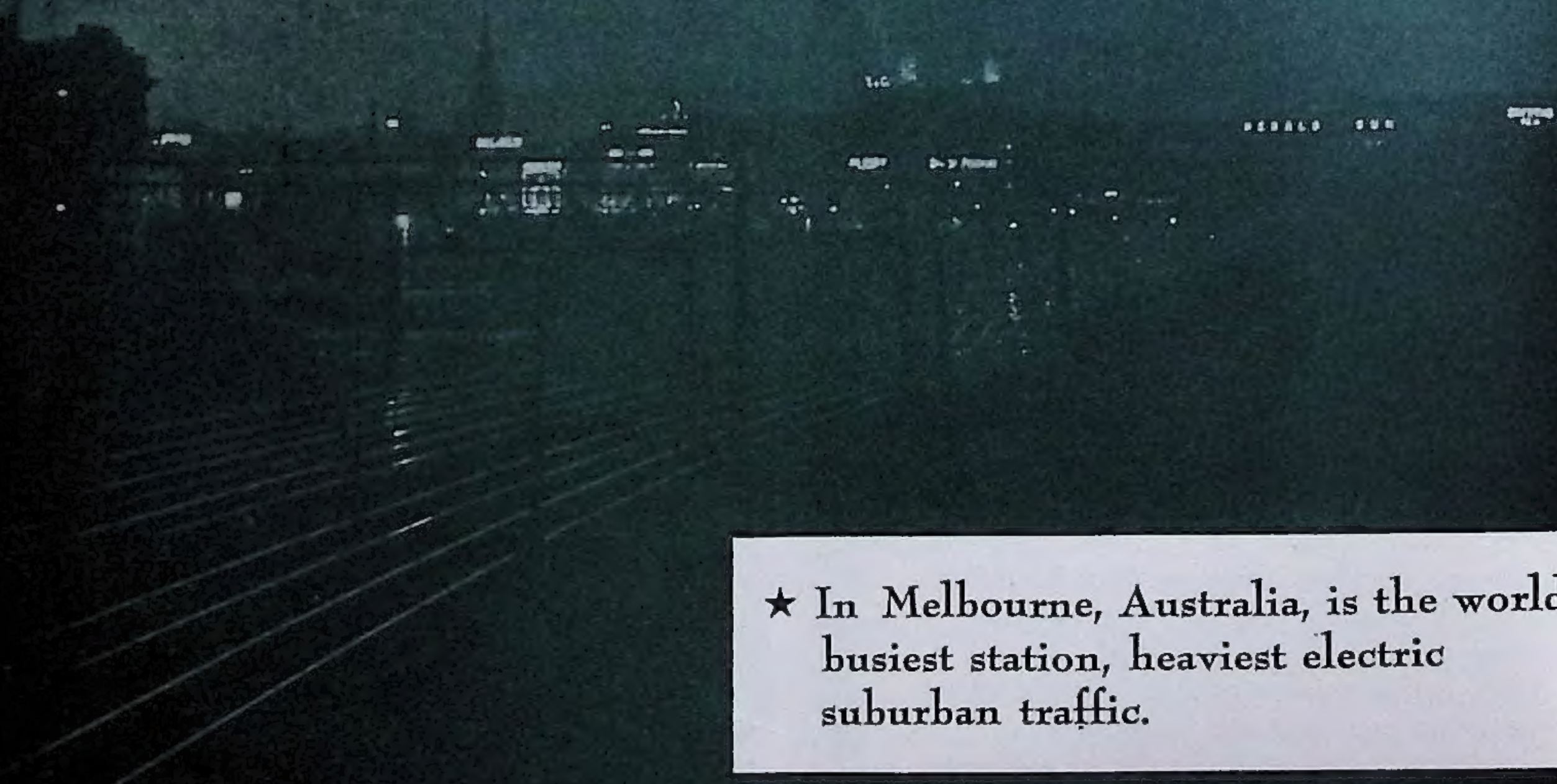
Charles E. Pearce; Railroadians of America.

For 31 full and interesting years, 1907 to 1938, Leonor F. Loree was president of the D&H. He was one of the greatest and most versatile railroad men of all time, a brilliant engineer and a capable operating man. It was Leonor Loree who, back in 1904, as president of the Baltimore & Ohio, brought to the attention of his superintendent of motive power, John E. Muhlfeld, the articulated compound locomotive which had just then been introduced in Switzerland and Russia. The first American Mallet resulted. Years later the same Loree, as president of the D&H, engaged the same Muhlfeld, by then a prominent consulting engineer, to design some of the most daring and progressive locomotives ever seen.

The results of this collaboration were three remarkable Consolidations (one of them the 1402, *James Archibald,* shown above) and one Twelve-Wheeler, built from 1924 to 1933 by American Locomotive. The steam pressures were progressively higher, starting with a radical 350 pounds on the *Horatio Allen*, No. 1400, working up to 400 pounds on the 1401, *John B. Jervis,* and then going to 500 pounds for the 1402 and the 4-8-0 1403, *L. F. Loree.* The first three of these engines were compounds, the last a triple-expansion design.

Poppet valves have also been used on a number of recent D&H locomotives, including Pacific No. 651, shown above near Essex, N. Y., with the morning train from Montreal to Albany.

Rails Across the Pacific



★ In Melbourne, Australia, is the world's busiest station, heaviest electric suburban traffic.

By W. Lamoni Carr.

AUSTRALIA is not only the land of kangaroos, koalas, and aborigines. It is also a land unusual and interesting in a railroad way, a continent where an east-to-west journey from coast to coast means seven changes in trains at capital-city terminals and at border change-of-gauge points. Across the great Australian desert is a single straight stretch of track 328 miles long and practically level. And in Melbourne, the capital of Victoria, is a station which is claimed as the busiest in the world. A random count showed 317,322 persons passing through the platform barriers of Flinders Street Station in one day!

We may have overlooked much of this by passing over Australia as merely the world's largest island. It is, instead, the world's smallest continent, a continent much the same in area as the United States and about the same in length and breadth. Unlike the United States, Australia has a population equal only to that of California alone, about seven million, and this is concentrated largely in the coastal regions of the South and East. Here is still the great frontier.

The first cities were established at the few

First-prize winner.

This article won $100 first award in the recent Trains' competition.

good natural harbors, and as commerce developed these cities became the neuclii for the six mainland states. Eventually, starting after the gold rushes of the 1850's, a network of railroads connected all the states on the Southern and Eastern coasts, and this, along with irrigation, has been largely responsible for the country's development.

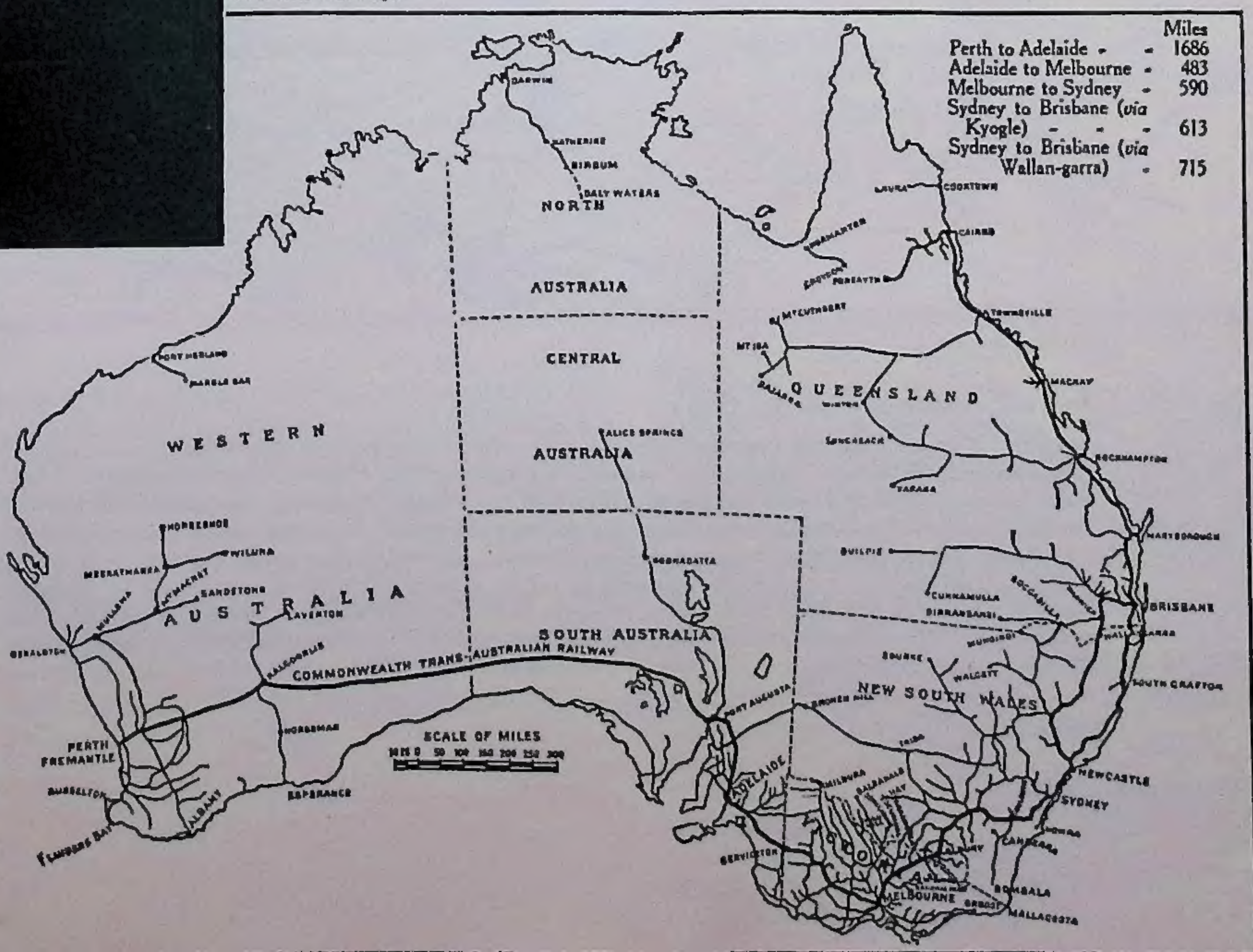
Victoria, the smallest state except for the island of Tasmania, is a little larger in both area and population than the state of Washington, but Melbourne, its capital, has a population of over a million, about three times as large as Seattle. This is by far the most densely populated part of Australia. Here centers the commercial life and trade for the interior section, and the shipping and importing. Here also center the lines of the state-owned Victorian Railways, consisting of about 5000 miles, and the electrified suburban lines, which handle one of the heaviest suburban traffics in the world. The major portion of this mileage is built to a gauge of 5 feet 3 inches, although there are some two-foot-gauge feeder lines in mountainous districts.

The electric suburban system centers at Flinders Street Station, on the edge of Melbourne's busiest district. That this one station is so busy is accounted for by the fact that it is the only station in the business district for suburban passengers, with the sole exception of Spencer Street, the principal station for through or "country" trains, which is located at the southwest edge of the business district. Spencer Street Station has through

This is not the United States upside-down.

At first glance the map of Australia appears to be one of the United States turned top for bottom, and indeed there are similarities in the area, length, and breadth of the two countries. But while the United States has more than 233,000 miles of railroads, Australia has only about 28,000 miles. At left: Melbourne at night.

Victorian Railways.



The railroads and resources of Victoria.

Victoria is one of the six mainland states in the Commonwealth of Australia. Its commerce centers about Melbourne, largest city, seaport, and capital. The railroad system naturally gravitates toward Melbourne, and the bigger portion of the freight is produce heading to Melbourne for export. Intrastate traffic grows with the country, however, and even traffic with neighboring states, which was considered impossible 90 years ago when the gauge muddle was being created, has reached considerable proportions. The principal interstate routes are to Sydney, New South Wales (off the map to the northeast), and to Adelaide, South Australia (off the map to the west). The famous 328-mile straight track on the Trans-Australian Railway is hundreds of miles beyond Adelaide.

platforms for the suburban trains which run through to Flinders Street, and stub platforms for the "country" and interstate trains which terminate here. It is not the large, imposing building one might expect. The station floor is black asphalt and reminds one of a city street. Covered ways between platforms have corrugated iron roofs. Doors have never been installed and parts of the walls are open for ventilation because the climate is mild, seldom going as low as freezing.

Bulletin boards show the arrival and departure time of all country and interstate trains, while changeable boards on the suburban platforms show the destinations of all suburban trains. These suburban platforms are farthest back from the entrance and after leaving the platforms the tracks converge sharply into a double line which passes over part of the city on a steel plate girder viaduct to Flinders Street Station. This is probably the busiest section of the railway in the state.

Trains to victory.

TRANSPORT FOR WAR, by Edward Hungerford. 268 5½" x 8½" pages, $3. Published by E. P. Dutton & Co., New York.

THE stupendous accomplishment of the American railroads is one of the sagas of the war. Our country has become, more than ever before, one vast assembly line with materials and parts as well as finished products shuttling back and forth over thousands of miles. Upon transport as much as upon production depends our victory.

The railroads are carrying the biggest share of the load, and in *Transport for War* Hungerford tells not only how they are doing it, but also how they are able to do it. This is the little-known story of R. H. Aishton, onetime C&NW president and post-World War I president of the A. A. R., and how he sold the railroads on a gigantic improvement program which prepared them for the unprecedented loads of today. The freight train of today is no more the freight train of 1920 than is the streamliner of today the passenger train of 1920.

But *Transport for War* does more than tell the story of railroad accomplishment. It fits it into the general transportation picture, in proper perspective. The river boats, the trucks, the lake steamers, the planes, are all doing parts of the task—forming a panorama of America moving toward victory. The colorful, moving and accurately factual story of all this will not only be good current reading for you, but in years to come will be a valued contemporary document of World War II.

The station atmosphere is much the same as in America. The "official in gray" has the answer for any question you might ask about trains. "Red Cap men" are at your command to assist with luggage, at a charge of three pence (about four cents) for a single article, or six pence per trip if more than one article. Several newspaper kiosks, restaurants and bars are in different parts of the station. The Travellers' Aid Society of Australia also has a room and someone in constant attendance to give assistance to those in need.

Platforms are all of the high type, as no Victorian Railway equipment has steps. The platforms are all covered and the tracks uncovered, most of them with trolley wires. Platform No. 1, nearest Spencer Street, is reserved for the *Adelaide Express,* which leaves at 4:30 p. m., and for the *Sydney Limited,* which leaves at 5:30 p. m. daily. Other important trains also leave from No. 1 platform during the day, including the *Sydney Express* at 4 p. m. A trip on the 5:30 p. m. *Sydney Limited* is in store for us. It is necessary to arrive early and check all luggage, as it *must* accompany the passenger on the same train or extra is charged for it at regular parcel rates. The allowance varies from 84 to 300 pounds, according to the class of ticket and the destination. There are two classes of accommodations in Australia. The first-class equipment is more roomy and has better seats and upholstery, and the fare is higher than for second-class.

I have a seat reserved on the right side, facing the direction of travel, in the second first-class car. Seat booking is compulsory on this train (cost 1s 3d or about 20 cents) and desirable whenever possible on most trains because the best seat can be had if booked early enough. I always pick the right-hand window seat facing the direction of travel because Australian railways use left-hand running on double track and I like to look in front of me and at the other track when there is one. A center seat in a compartment is real misery in a second-class coach seating four abreast, because if one is sleepy the only thing to lean against is some stranger's shoulder.

A timetable is obtained. This costs three pence but is well worth the money. Friends are allowed on the platforms but must buy a platform ticket to do so, at three pence each. This would be a splendid idea in America, where in many stations one can hardly get a glimpse of a train unless he is actually leaving on it.

We show our rail ticket and seat ticket and pass the barrier, see that our hand luggage is

Victorian Government Tourist Bureau.

Melbourne from the air.

To the left of this photo is downtown Melbourne. The long building at bottom center is Flinders Street Station, and above it, to the left of the river bend, are huge yards in which electric suburban equipment is stored during off-peak hours.

properly placed, and then head for the front end of the train. The locomotive is an S-class three-cylinder Pacific, No. 302. Four of these engines were built at the Newport Railway Workshops of the Victorian Railways in 1928. They are clean-cut, graceful locomotives, 80 feet long. The tender is rather small but the engine is heavy-looking with three 20½-inch cylinders and a 28-inch piston stroke. Drive wheels are six feet in diameter. Tractive force is 41,000 pounds at 85 per cent boiler pressure. These locos are reserved for the *Sydney Limited* but are sometimes seen on freight or goods trains. The high platforms obscure part of the locomotives and cars and prevent a really good picture from being taken.

Behind the locomotive is a C-class guard and luggage van. Normally such a van is placed on the rear of a passenger train like the caboose on an American freight train. Such was the case with the *Sydney Limited* for some time, until railroad officials decided that the open-end parlor-observation car should be the last car instead of next to the last. Spencer Street Station was designed to handle luggage, mail and packages in the rear car and some inconvenience is caused by having this car at the head end. Three wide double doors are on each side and there is a small door at the front and one at the rear for the guard. Two small lights and reflectors are recessed in each side near the roof to illuminate the platforms at night.

Two second-class cars are next, followed by the steel dining-car *Avoca*. Locomotives are painted black and all passenger and goods cars are a red oxide, just slightly darker than "box-car red." The railway name does not appear on any of its equipment and it does not have a herald. The only exceptions are cars jointly owned by the Victorian and South Australian railways, which have the initials "V&SA" on the sides at each end. All cars and locos are numbered except sleeping, dining, parlor-observation, and a few other cars that have names.

Two first-class cars and the open-end parlor-observation are on the rear of the *Limited*. This consist is typical but may vary, generally in the number of first- and second-class cars. All interstate cars have corridors down one side and are connected with closed diaphragms. The side entrance doors are spaced away from the ends with at least one window between for the men's and ladies' rooms. Most coaches are of wood with steel underframes. Westinghouse

Airspy; courtesy Melbourne *Herald*.

Melbourne.

A city of one million, Melbourne has a very modern downtown area. Flinders Street Station is just out of the photo to right bottom. The tracks at left lead to Spencer Street Station, while those wying out of the photo at bottom lead to Port Melbourne and St. Kilda.

air brakes and heavy automatic couplers are used on all new rolling stock, but provision is made for coupling with the older link-and-hook type. Buffers on corridor passenger cars are constructed as part of the diaphragms.

A phone in the parlor-observation, connected with the Melbourne exchange, is available for free use of passengers until the train leaves.

Passenger cars are large, roomy and comfortable. Steam heat is not provided in the Winter, and instead, metal boxes (about 3 x 9 x 24 inches) are put on the floor as foot warmers. They contain something that generates heat and are really welcome on chilly days, along with a heavy robe that is carried in Winter to help keep warm. This last item might be omitted the first time by an inexperienced traveler, but after spending one Winter trip without it, it isn't forgotten again.

Porters on the train and Red Caps at the stations are all white, as the Australian dislikes all colored individuals regardless of whether they are his equal or not. The native Australian

Victorian Railways.

The *Sydney Limited.*

Australian trains, like British, run on the lefthand track, but Australian locomotives, like American, have headlights and cowcatchers.

black man is seldom seen in the large cities. I never encountered one on a train in 2½ years, although a train ride of some kind was included almost every day. There are fewer than 600 aborigines in Victoria, very few of whom are full-blooded.

Railroad employees are not supposed to be tipped. Most Australians dislike tipping and consider it beneath their dignity to accept a tip.

From experience I found the best place to be when leaving Spencer Street Station on the *Sydney Limited* was in the dining car. This heavy, wide steel car has tables on each side, seating two abreast, and the center aisle is wide. The windows are large, and more can be seen from here than from a compartment, as the partition separating the side corridor blocks off the view on one side.

The locomotive whistles in a pleasing tone and we are moving on time. Our course will be in a generally northeasterly direction for the 590 miles to Sydney, which is in New South Wales. The train picks up speed rapidly. We pass over the multitude of points (switches) and crossings until we are on a track heading northwest. Immediately after leaving the platform we pass to the right of the North Melbourne locomotive sheds, roundhouse, and the North Melbourne freight (or goods) yards. This section of track is extremely busy at this time of day, with seven-car electric trains passing on the average of one almost every minute and with steam trains leaving for the country.

All locomotives from the engine terminal have to cross the six-track main line to get to the platform tracks at Spencer Street. To avoid delay as much as possible the engines are brought over in groups, like a solid train, and as early before the rush as possible. Sydney solved a similar problem by building an underpass for engines, an expedient which has also been considered in Melbourne.

The train races on without slackening speed. The right of way is completely private with overbridges for road traffic. A few grade crossings are protected by swinging gates and gatemen. The gates swing across the tracks or the roadway, whichever is to be protected.

North Melbourne Station has shrubs and flowers covering the right embankment and shrubs at the end of the platforms at rail level. North Melbourne Junction is lined with trees, shrubs and flowers on both sides and between tracks as they separate in a "V." Stations pass in rapid succession—Kensington, New Market, the junction to the Flemington race course to the left, Ascot Vale, and other stations with advertising boards (called hoardings) near each ticket office. We reach Broadmeadows, the end of the electric overhead. From here on the journey is through typical rolling Australian country with a few mountains thrown in for good measure. The grades are numerous and heavy, some as much as one foot rise for every 40 feet. The train races down one side and gradually slows as it climbs the other side with the exhaust barking six times for every revolution of the drive wheels. The three-cylinder Pacifics have given splendid performance on this run with little trouble.

One need not think about retiring early when traveling from Melbourne to Sydney, as there are no sleeping cars on this train. Gauge dif-

Victorian Railways.

The S-class three-cylinder Pacific.

Some of the clean, speedy-looking S-class Pacifics have been streamlined, as the 302 (shown before streamlining on the opposite page). These locomotives were built in the railway's own workshops. They have cylinders of 20½ x 28 inches, drive wheels of 72-inch diameter, total evaporative heating surface of 3166 square feet, grate area of 50 square feet, total weight of engine 123 tons, and tractive effort of 41,000 pounds. Steam pressure is 200 pounds. The S class is used on the *Sydney Limited* and occasionally on freight trains.

ference prevents the use of through equipment. At 10:20 p. m. the train arrives at the border town of Albury, N. S. W. The 5′-3″ gauge Victorian train takes the left platform track, and waiting on the right platform track is the slightly smaller New South Wales standard-gauge train. Baggage, packages, etc., are transferred from one train to the other in the middle of the night. Sleepy passengers, some with small children, gather their belongings and move. Those who wanted to retire early but couldn't, soon get to sleep in their berths on the New South Wales train. Forty minutes are allowed for this transfer. In the meantime there is plenty of time to compare trains and engines of the two state systems. At 11 p. m. the New South Wales locomotive gives a weak shrill whistle and the journey is continued to Sydney, with arrival at 10:50 a. m. the next day. Melbourne and Sydney use the same standard time. It is 190½ miles from Melbourne to Albury and 399 miles between Albury and Sydney, or a total of 589½ miles, covered at an average of 34 miles per hour.

The southbound limited, sometimes called the *Melbourne Limited* or the *Melbourne Express*, passes through this same routine, arriving at the border at 7 a. m. There are no late sleepers on this train, for at 7:30 a. m. the journey is continued, arriving at Spencer Street at noon. A

traveler needs good luggage to withstand the extra handling at break-of-gauge points.

The standard gauge of 4 feet 8½ inches was recommended for all of Australia in 1846 by Gladstone, then colonial secretary. New South Wales, however, in 1852 accepted the recommendation of its Irish chief engineer for the 5′-3″ gauge with which he was familiar in Ireland. Victoria and South Australia had been waiting the decision of New South Wales, so they now started to build to the broad gauge. Then New South Wales changed chief engineers and the newcomer, a Scotsman, advocated the standard gauge. He persuaded the New South Wales government to repeal the previous act of 1852 and to adopt the 4′-8½″ gauge in 1855. This change was made without consulting Victoria or South Australia. Rolling stock and locomotives had already been ordered from England by Victoria and it was impossible to cancel or change the contract soon enough, because this was before the day of the deep-sea telegraph to Australia. Thus the trouble was started. Queensland, West Australia and Tasmania later adopted 3 feet 6 inches for their railways.

Later on, New South Wales appointed a third engineer who advised the relaying of the then-existing 20 miles of track to broad gauge to match the other states. The government dismissed as a "very remote contingency" the pos-

sibility of its lines ever meeting those of the Victorian Railways and the suggestion was rejected.

It is easy in these days to get heated about the muddle, but it is more just to visualize the conditions at the time. This was in the days of sail ships, and a score of years before the deep-sea cable brought London and Australia into rapid communication. Also, Australia knew very little about steam and the thought that railways could conquer the mountains was lightly put aside.

Isolated as they were, each of the states developed individually, and, particularly between New South Wales and Victoria, a spirit of emulation was engendered. Each state had differing laws and varying railway gauges. The commonwealth did not come into being until January 1, 1901. Victoria and New South Wales contain the bulk of the population and constitute the economic heart of the country, so these two states should have agreed from the be-

Suburban equipment yards.

In Jolimont yards, near Flinders Street Station, multiple-unit electric suburban coaches are stored when not in use. Maintenance and repair work is done in the shop building, top center. This view is looking away from downtown Melbourne, with the River Yarra beyond the tracks. Several main lines run through these yards.

Victorian Railways.

ginning. The whole nation is now experiencing, in moving military equipment, troubles caused by the differing gauges. This very thing has been mentioned many times before by Australian military leaders.

Numerous attempts have been made, and doubtless will continue to be made, to establish a uniform standard gauge. At one time it was proposed to spend 21 million pounds to provide a standard-gauge route from Brisbane to Freemantle. This would involve the narrowing of gauge in Victoria and South Australia and the construction of a new line in West Australia. The narrow-gauge lines in the rest of the country would be left as they now are. The New South Wales system, with an extension into Brisbane, and the Commonwealth line across the western desert are already standard gauge. The work was to be spread over a period of seven years. The majority of the work would be done in Victoria.

The one Victorian Railways train which doesn't carry a combination guard and luggage van at the rear is the Sydney Limited, and this observation car is the reason.

Victorian Railways.

THE jointly operated *Adelaide Express* is as fine a train as the *Sydney Limited.* It leaves Spencer Street at 4:30 p. m. and arrives the next day at 9 a. m. in Adelaide, 450 rail-miles to the west. (Adelaide time is 30 minutes earlier than Melbourne and Sydney time.) The passenger stock is jointly owned but each system furnishes its own power.

The *Geelong Flyer* is Victoria's crack express. Geelong, the chief coastal city except for Melbourne, is 45 miles southwest. The *Flyer* runs nonstop. Class A-2 engines are used on this train and practically all other passenger trains except the *Sydney Limited* and *Sydney Express.* These Ten-Wheelers have large drivers, enormous-looking smokeboxes, and large pilot wheels. During holiday seasons every available platform track is crowded full of coaches with an A-2 generally at the head.

These engines can pull trains longer than many station platforms. One time when the train stopped at Sunbury the last three cars did not reach the platform. One "don't" is never to leave a car not at a platform, so I waited. I had experienced the same thing before and knew that a second stop would be made several car lengths ahead. The engine driver (he isn't an engineer in Australia) didn't make the second stop, so I didn't get off at that place until I had gone to the next stopping place and come back on a later train. I have forgotten the name of this next stopping place, but it had one. The railway seems to run out of names occasionally, so some are listed simply as Stopping Place No. 7, Stopping Place No. 36, and so forth.

The majority of country trains use gas lighting and are unheated. All locomotives have pilots, including freight locos, and most of them have headlights. Grab irons and steps are totally lacking on most rolling stock except for what is absolutely required. Freight or goods cars do not have a catwalk. The brake is at the side and is operated from the ground. Practically all cars, including the small four-wheel goods wagons, are equipped with air brakes.

Heavy freights are pulled by an X-class engine, 2-8-2 wheel arrangement, and smaller freights use the 2-8-0 C-class locomotive. The majority of freight cars are open-top cars resembling a gondola, and in these, practically everything is shipped, including wheat. Some have side doors that swing out, some have hopper bottoms, and still others have solid sides and bottoms. Merchandise that might be harmed

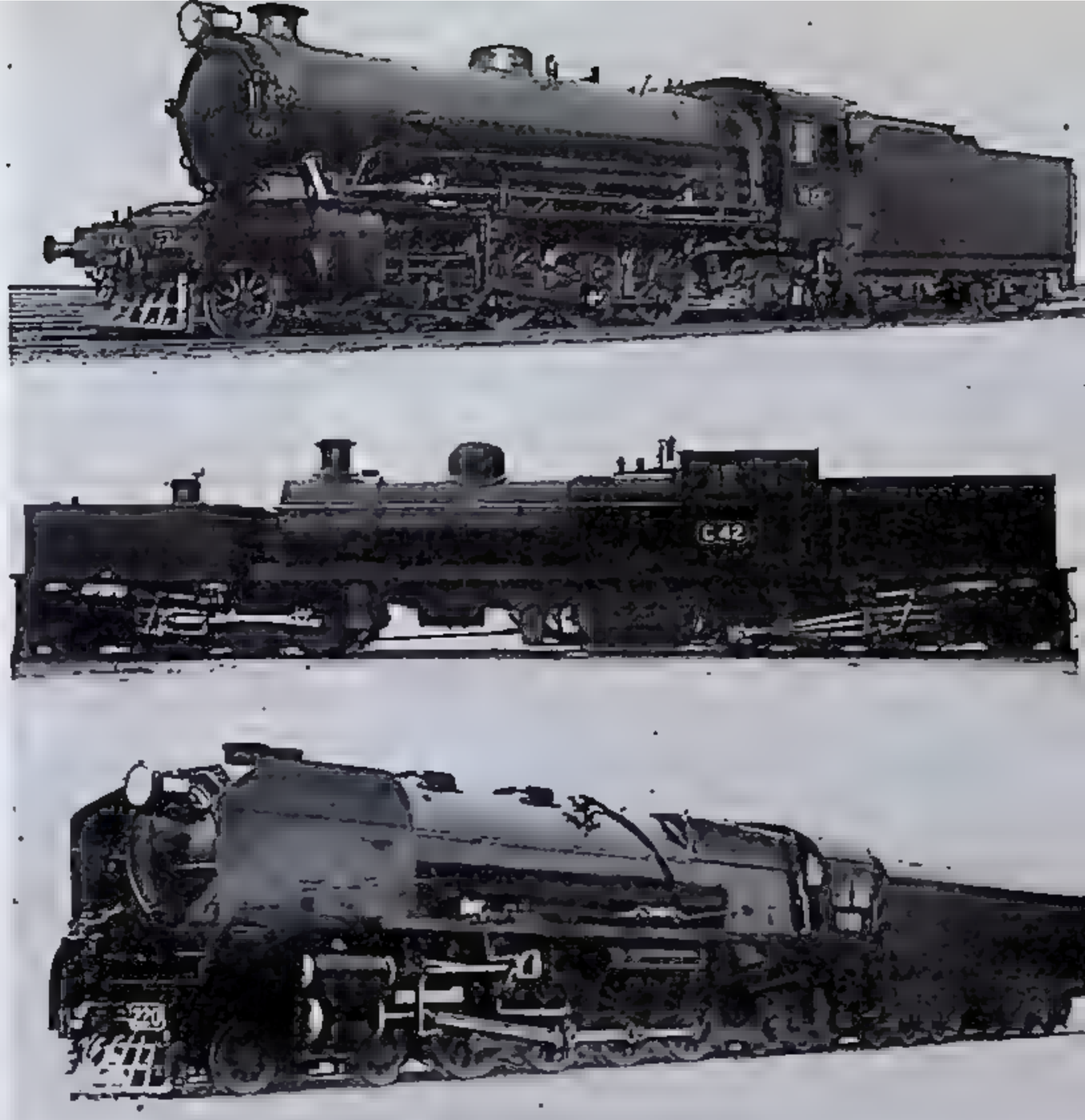
by the weather is covered with a heavy tarpaulin. Most of the cars are four-wheelers carrying about 10 or 15 to 25 tons. More of the new ones are double-bogie cars; that is, they have two trucks and carry 30 to 50 or more tons. A few have six wheels, notably the refrigerator cars and Z vans which are attached to the rear of every goods train. All goods cars have buffers and are loosely coupled with three heavy links with about six inches of slack not counting the compression of the buffers. New equipment is being constructed with automatic couplers.

Mixed trains are run on some lines and take regular passengers. On some freight-only lines, male passengers are carried but not female passengers. Gas-electric coaches with provisions for both first- and second-class passengers are also extensively used on branchline service and for intermediate service between steam trains on main lines.

Land cruises are a feature of the holiday season. One cruising train took 59 tourists for a cruise of 383 miles by rail and provided motor-car excursions covering 180 miles. Two lounge coaches, *Goulburn* and *Norman,* are part of the equipment used. The latter has a speedometer, height recorder, barometer, radio, and roll-up maps for the use of tourists. For the sightseer or tourist who wants an individual train, a motor sedan has been specially equipped for travel on railway lines. It is powerful and silent, weighs two tons, and is capable of high speed. It is upholstered in leather and can seat seven persons including the driver. The charge for this car, irrespective of the number of passengers traveling, is 1s 6d a mile (about 25 cents), with a minimum charge of five pounds (about $16) a day. This car can be scheduled for any tour at very short notice.

Fifteen cars, passenger and freight, all painted a bright yellow, form a typical "Better Farming" train which makes visits in the farming sections of the state on 10-day tours. Accommodations are furnished for the staff and visitors. An electric power plant, livestock, models of farms, a utensil display, wool exhibit, soil and grass specimens and many other things of interest to farmers and better farming are a part of this train.

National Resource Development trains, known as "Reso" trains, go on tour to give the city man a knowledge of the resources of the state. These trains are self-contained, except for locomotive, and include a staff car with typist and office. Sleeping, dining and observation cars are included, as well as a shower bath. An average charge for a trip of seven days is 15 guineas (about $51).



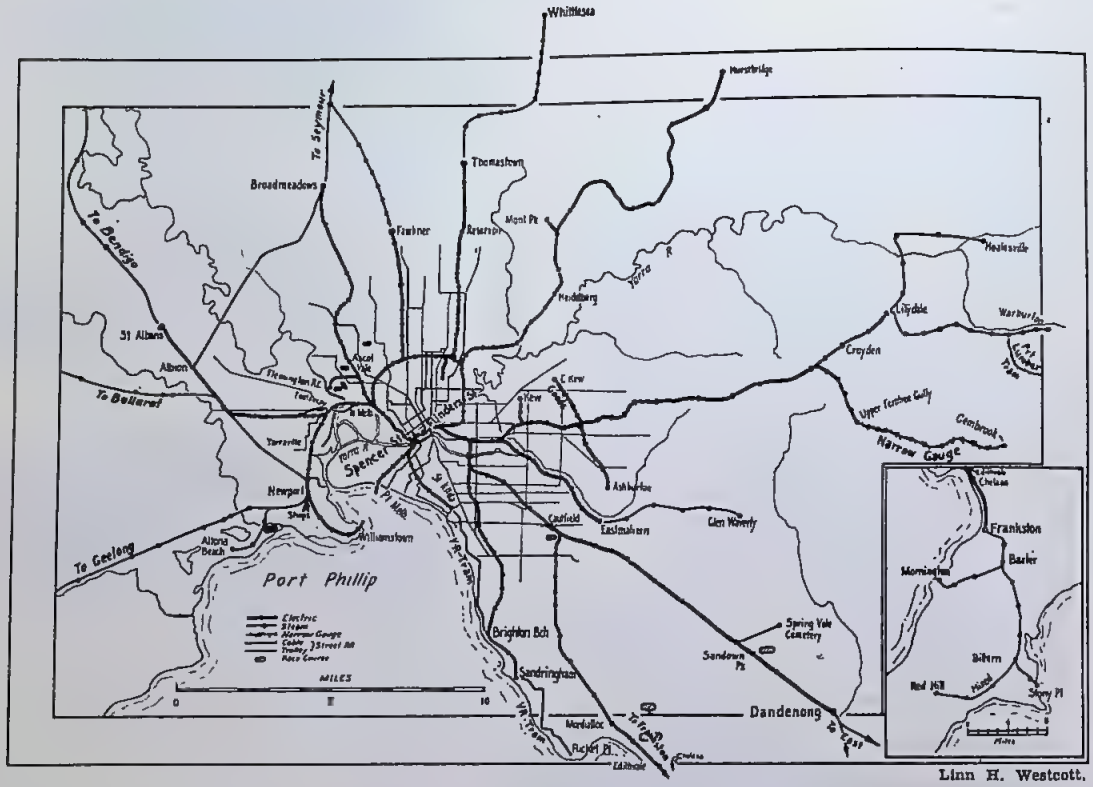
Bottom, John L. Buckland, Melbourne, Australia; others, Victorian Railways.

Bulk of the Victorian Railways freight is pulled by Mikados (top), although some runs behind the new 4-8-4's (bottom) or the electrics (below). The middle engine is a narrow-gauge articulated of the Garratt type.

On September 12, 1854, the first train to run in Australia was hauled from Flinders Street to Sandridge (now Port Melbourne) by the first steam locomotive to be built in Australia. The locomotive was built, in 10 weeks, because the ones ordered from England failed to arrive on time. Since then, more than 75 million pounds has been invested in the Victorian State Railways. Today the trip from Flinders Street Station to Port Melbourne is only seven minutes by electric train.

Freight, passenger, steam and electric trains all use the same tracks interchangeably. Flat-bottom rail is used exclusively except for a few ancient sidings, where bullheaded rail in

Victorian Railways.



Linn H. Westcott.

Railway lines of the Melbourne area.

The Victorian Railways leave Melbourne in all directions—a perfect setup for a suburban system serving all districts of the city. The service on opposite lines is combined, trains running right through the downtown area. This avoids the terrific main-terminal congestion common to American suburban lines which so often terminate in the downtown station. On the opposite page is Flinders Street Station through which all suburban lines pass, and below is a typical Melbourne-area suburban station on a four-track line. Most signals are of the semaphore type as shown, with an automatic train-stop trip located along the left running rail.

chairs may be found. Much of the suburban trackage has been welded into long continuous strips and has proved very satisfactory. Ties ("sleepers") are sometimes of hardwood and have an average life of 25 years. Some have been in use for 40 to 50 years.

All trains carry round white disks with a cross, parallel lines, or some symbol. These disks on the front are to identify the trains to assist tower men in routing traffic. At night the position of marker lights gives the same indication. Electric trains going to the ends of the longer lines past the suburbs also carry headlights.

The signaling system is mostly three-aspect semaphore with close block spacing in the metropolitan area for 10-car electric trains. Automatic brake trips are provided on all electric lines and equipment.

The busiest tracks on the whole system are those on the viaduct between Spencer Street Station and Flinders Street Station during the rush hours, when at least 52 electric passenger trains pass over these two tracks in an hour, along with a few steam passenger trains and short freights. These tracks fan out at each station as soon as they leave the viaduct. Trains hit the switches at a fair speed without difficulty because of the stability of the low, heavy cars on the wide-gauge track.

Hikers can buy special round-trip tickets to a station on one line and return from a different station on another line. For example, one such

Steam-heated cars.

Steam-heated passenger cars, doing away with stoves or hot-water heaters, were introduced in 1881. The system was greatly improved in 1903 by the introduction of the vapor system of heating.

trip that I thoroughly enjoyed was from Flinders Street to Upper Ferntree Gully on the electric train, and then narrow-gauge to Gembrook. Small Garrett engines are used on this line. The hike between Gembrook and Warburton is ideal and with good luck a couple of the sly imitative lyre birds may be seen. The return from Warburton was on a steam train, completing a round trip on a hikers' ticket. You may take your bicycle along at reduced rates as compared with an individual separate shipment. One-half rate applies to motorcycles when accompanied by the rider, providing the gasoline ("petrol") has been drained and the battery disconnected.

Family tickets are popular for weekend excursions and holidays and are for two adults and four children, your own children or others, or one adult and any five children. Saturday-Sunday and Sunday-Monday tickets are also sold. Above all, don't let an inspector catch you in a first-class car with a second-class ticket.

On Melbourne Cup day every available car is used for moving the race traffic to the Flemington Race course. The Melbourne Cup is *the* sporting event in the Southern Hemisphere, and horses are entered from overseas. Horses all travel together and arrive at the race course in

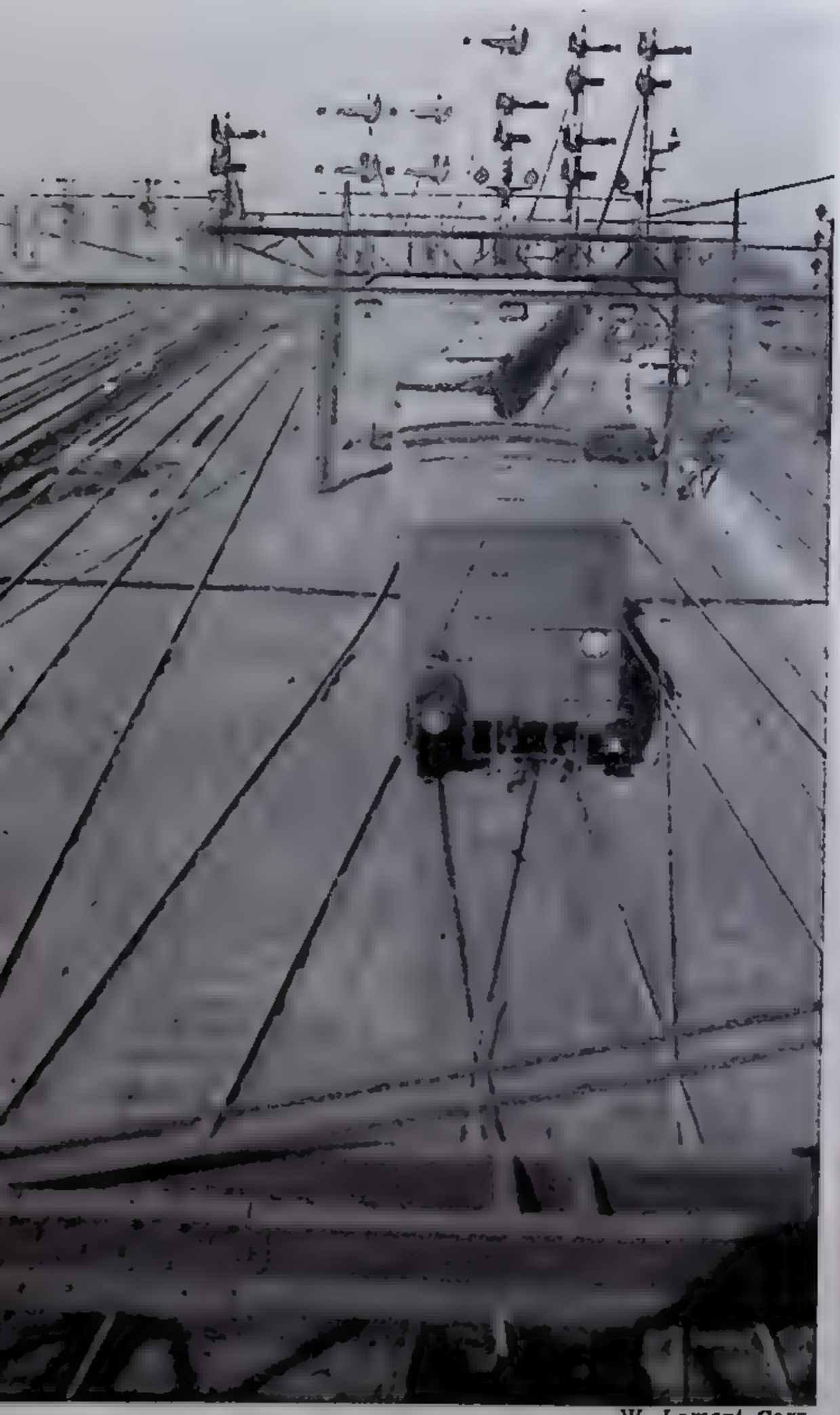
Right, Herbert Fishwick.

Victorian Railw

Victorian Railways.

Electric coach interior.

While the electric suburban coaches of the Victorian Railways have side doors for each compartment (exterior at right above), the compartments on later cars are also connected inside. The interior above is a first-class suburban car. Yard scene below.



W. Lamont Carr.

a solid train in special horse cars. The station is on a branch line constructed only to serve the race course and the Royal Show Grounds. Crowded eight-car trains arrive on the stub tracks and unload from 64 side doors, eight per car, in a matter of seconds. The driver and guard step from both ends and a new driver and guard immediately take their positions for the return trip. Less than 60 seconds is consumed from the time the train stops from its inward journey to the time it is leaving for the return trip. A steady stream of trains brings in thousands and thousands of race fans just before opening time.

The Melbourne Electrified Suburban Railway System is one of the largest of its kind in the world. The electrification was completed in 1923 without interruption of regular service at any time. One hundred and seventy-three route miles or 439 single-track miles radiate from Flinders Street Station, a large, imposing building on the River Yarra at the edge of the business district. The longest individual double-track line extends to Frankston, a popular resort on Port Phillip's Bay, 26½ miles from the city. The normal multiple-unit trains are about seven cars in length. Eight hundred and fifty-one cars are used for passenger service and special cars are provided for a high-speed electric parcel service.

The huge volume of business handled by the Flinders Street Station (2070 electric and 150 steam trains in 24 hours, 158 in peak hour) is accounted for by the fact that its 16 platforms are of the through type—trains coming in from one run stop for only two or three minutes at Flinders Street and then proceed right on through on another line. At the start of the

Freight cars are like British.

Because of the link-and-screw couplers, Victorian Railways freight cars have buffers, giving them a strong British cast. The eight-wheel car at right is a stock car; the six-wheeler is a refrigerator van. Most freight cars have four wheels like the oil tanker. The guard van is used as the rear of every freight train, like an American caboose. The passenger car is a second-class coach of the type used on most country trains, and seats 60 passengers.

rush-hour period, the stops at Flinders Street are slightly longer, for it is here that additional cars are coupled on to make the longer trains for the heavier traffic. The couplings on all electric passenger cars and on most steam passenger cars are the link-and-hook type with a center threaded section similar to a turnbuckle so that it can be turned with handles to tighten the space between cars.

All of the electric cars are equipped with dead-man's control, Westinghouse automatic brakes, automatic acceleration, and automatic train stop. The newer electric cars are equipped with gas lighting in addition to the electric bulbs so that they may be used on short country runs where the line is not electrified.

Two electric locomotives were included in the original 1923 equipment and were used for switching in the Flinders Street yard and later for some road freight service. This was so successful that in 1929 10 more electric locomotives were constructed and all freight sidings in the electrified district were fitted with overhead wires. Freight trains now operate by electricity to the ends of all suburban routes.

The direct current on the trolley wires is at 1500 volts pressure. It is generated at two state-owned, railway-operated power plants and transmitted over the electrified district at 20,000 volts. Some 150,000 tons of coal is used yearly in generating the electrical energy which drives the electric cars a total of 30 million car-miles. Twelve of the 21 substations are operated automatically without any attention other than periodic inspections.

As with any other railroad operation, ingenuity as well as engineering skill is necessary to the successful solution of the operating problems. A new high electric signal box at Caulfield overlooks the Caulfield race course and handles a heavy race-track traffic. Since Australians are particularly fond of horse racing, a high trellis with vines had to be erected between the signal box and the race course in order to keep the trains on schedule!

Victorian Railways.

Collection of Linwood Moody, Union, Me.

Linwood Moody collection.

To the Easterner, New England is never "up North." It is "down East." This is a land of copious railroads, intriguing branch lines, and beautiful scenery—lakes, rivers, woods. 'Way down East in Maine was once the land of the two-foot gauges, of which the six-mile Monson Railroad is the only survivor.

Three large systems make up most of the New England railroad mileage. The Boston & Albany line of the New York Central reaches straight east from Albany and forms a dividing line between the New Haven system to the south and the Boston & Maine-Maine Central system. The Canadian National also reaches to the sea with its Grand Trunk and Central Vermont, but is hardly considered a New England railroad. The Bangor & Aroostook, with its 603 miles in the heart of Maine, is the largest of the many smaller lines.

Down East

At left is the Maine Central station at Warren, Me., many years ago, with MC No. 55 on the main track and the Georges Valley Railroad train for Union in back of the station. The Georges Valley later became the Knox Railroad, owned by the Knox Lime Company, and was abandoned November 30, 1932. At right is Crawford Notch, through which the MC crosses the White Mountains near Mount Washington of cog-road fame. The snow-bucking engine is Maine Central, while the neat Mogul with suburban train belongs to the affiliated Boston & Maine.

Clifford Scofield, Norwalk, Conn.

Gregory R. Waring, P. O. Box 39, Upham Corner Station, Boston, Mass.

Norfolk & Western 2-8-8-2

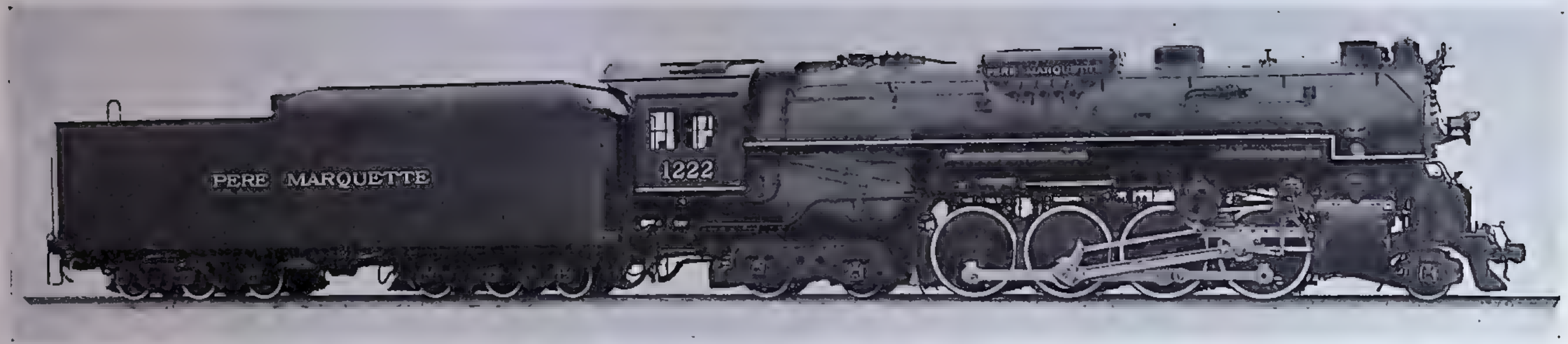
THE Norfolk & Western Class Y-6a 2-8-8-2 compound articulated freight locomotives are a product of the road's versatile Roanoke Shops, which also turned out the snappy 4-8-4 streamlined 600-class engines and the heavy simple articulated locomotives used in fast freight and heavy passenger service.

The similar locomotive at the bottom of the page is a slightly earlier Class Y-6. Numbers of the Y-6a's start with 2155. Compound articulated locomotives, the only engines which can correctly be called Mallets, can easily be recognized by the noticeably larger low-pressure cylinders on the front engine. The true Mallets are slow machines, efficient for heavy coal trains as on the N&W, but not fast enough for modern merchandise and passenger trains. The Y-6a's are fully roller bearing equipped.

Specifications:

Tractive force	Simple, 152,206 lbs.; Compound, 126,838 lbs.
Cylinders, diameter and stroke	25" and 39" x 32"
Drivers, diameter	57"
Weight on drivers	522,850 lbs.
Weight on front truck	32,200 lbs.
Weight on trailing truck	27,850 lbs.
Total weight of engine	582,900 lbs.
Total weight of engine and tender	961,500 lbs.
Steam pressure	300 lbs.
Grate area	106.2 sq. ft.
Heating surface (evaporative)	5656 sq. ft.
Tender capacity	Coal, 26 tons; water, 22,000 gals.

Norfolk & Western.



Pere Marquette 2-8-4 Built by Lima, 1941

COMPARISON of both the photos and the specifications will show that these two Lima-built Berkshires are practically twins, and this is not surprising, for both the Nickel Plate and the Pere Marquette are controlled by the C&O and both have much the same operating requirements. For both roads these particular locomotives are duplicates of earlier orders. The Pere Marquette order covered 12 locomotives, delivered in October, 1941, while the Nickel Plate received 10 of these locomotives in March and April of 1943.

Nickel Plate 2-8-4 Built by Lima, 1943

Specifications:

	PM	NKP
Class	N-1	S-1
Cylinders	26" x 34"	25" x 34"
Tractive power	69,350 lbs.	64,100 lbs.
Drivers, diameter	69"	69"
Weight on drivers	277,600 lbs.	258,000 lbs.
Total engine weight	442,500 lbs.	421,000 lbs.
Grate area	90.3 sq. ft.	90.3 sq. ft.
Boiler pressure	245 lbs.	245 lbs.
Heating surface (evaporative)	4777 sq. ft.	4772 sq. ft.
Tender capacity:		
Water	22,000 gals.	22,000 gals.
Fuel (soft coal)	22 tons	22 tons

Northwestern Pacific gold-spike special.

It was a bright July day in 1915 when this
Northwestern Pacific station at Sausalito, on th
Bay. Willits is a sawmill town about half way
Pacific main line which extends to Eureka, o
redwood country some 270 miles from the Gold
the derby hats were headed not only to Willit
to witness and celebrate, the next day, the dri
marked completion of the Eureka line. The trai

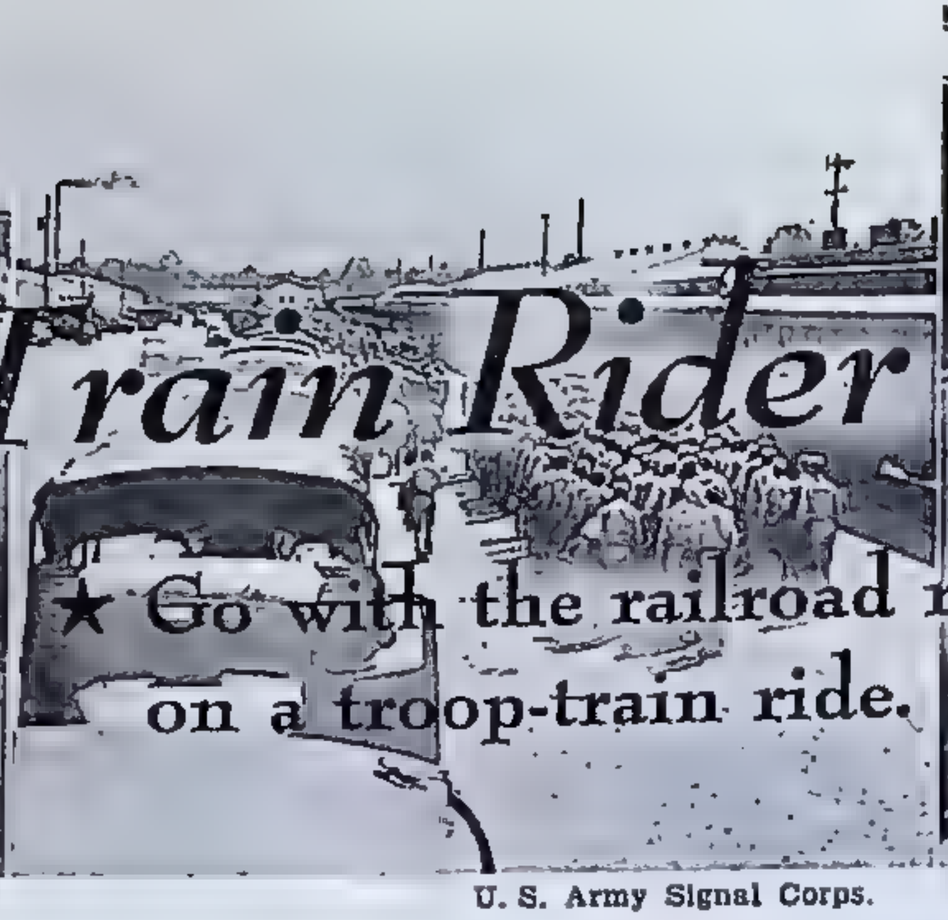
William King; courtesy Jack Farley, 1907 5th Ave., San Rafael, Calif.

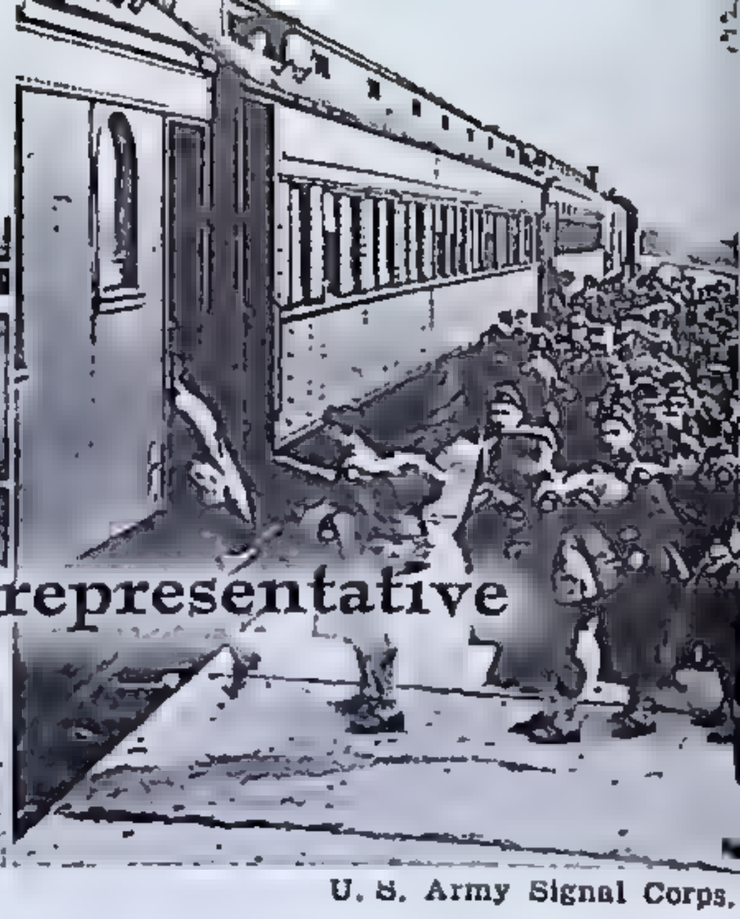
illits special stood in the old north shore of San Francisco north along the Northwestern the Pacific Coast and in the n Gate. The gentlemen under but beyond, where they were ing of the golden spike which s at left are the open-platform

multiple-unit electrics which until February 28, 1941, joined with more recent heavy vestibuled steel cars in offering an intensive suburban service to the north bay area. The Golden Gate Bridge short-circuited the NWP's ferries with the result that the suburban service was abandoned entirely and the once-a-day overnight through train to Eureka now leaves from San Rafael, farther north, where travelers change from the bus which has brought them over the Gate Bridge. The Sausalito terminal, which was a familiar twice-daily scene to thousands of commuters, is no more.

Troop-Train Rider

★ Go with the railroad representative on a troop-train ride.





Norfolk & Western. U. S. Army Signal Corps. U. S. Army Signal Corps.

By William Forsythe.

EVERYONE knows there are many troop trains moving these days, but few people know there is a civilian, a key man, on every train. His presence is demanded by the government. Even without the demand, it would be most wise to have him on every train. He is the escort, or train rider, representing the railroad.

He has few specified duties, but his life is so arduous that many men simply can't stand it. Great physical strength is not needed, but nerve control is everything. Breakdowns have occurred; near-breakdowns have been numerous. The escort can't tell anyone what to do, but he is responsible for every detail of the train's operation. He never knows when he will go to work, and once on the job he never knows when or where he'll get a bath and a bed. He must have full information about the train movement, but is forbidden to disclose the least bit of it. During recent months, he has also been escorting trains filled with German and Italian prisoners.

Where did this escort come from, and what kind of chap is he?

Obviously he must know at least a little about the railroad he's representing, and he's got to mix with all peoples in all circumstances. Some railroads have created the position of train rider on a temporary or duration basis, and found a few individuals able and willing to accept the job. Occasionally, operating-department officers and employees serve as train escorts. But the chief source of supply is the traffic department. Solicitation of the traditional type is out, now. The men are already trained in meeting the public. Payroll disturbance is avoided, essential duties provided for the men, and they become better educated about their railroad.

To illustrate the work of a train rider, let's suppose you, a traveling freight agent for the XY&Z Railroad, are assigned to this duty for a one-month period. After straightening up the desk, you set aside a supply of matches, scratch pads and other advertising novelties your company may have available. You stop at the bank for a hundred dollars in cash and a couple of blank checks, then you pack up the following:

A shoe-shining outfit.

Knife, fork and spoon. Most eating en route is from paper plates and cups; borrowing personal effects, except in emergency, is bad form.

A pair of Pullman slippers for relief on the long runs.

An extra pair of shoes.

All the socks and underwear you possess.

A small glass jar of powdered or flaked laundry soap. If you reach a small junction town in late evening with all clothing dirty, for only a 12-hour stay, you'll simply have to do your own washing.

You stop at the office, pick up the advertising. You buy a carton of cigarettes for the mess sergeant and others.

You go out on line and make two or three trips that aren't so bad. Then you get a stinger. The train has 11 sleepers and 30 flats of automotive equipment; you travel in mountain territory over a clogged railroad. Fifty-one hours you ride, with little sleep, and finally, at 11 a. m. one day, you deliver your train to a connecting line at Replogle Yard, six miles from Centerville.

Half dead, you use the roundhouse phone to check in with the passenger office downtown and then canvass all hotels for a room. None is available. You leave your name and this telephone number. You take a bath in the roundhouse shower, dropping three pieces of clothing and soiling them unspeakably. You lie on a bench for troubled sleep; the bench is hard, and engineers are boisterous fellows.

The clerk arouses you; one of the hotels is calling. They have had a check-out and are

Pullman Company.

U. S. Army Signal Corps.

U. S. Army Signal Corps.

holding a room for you. Fuzzy in the head, you say only, "Thank you very much," and hang up. It is 4:30 p. m.

The telephone rings immediately, and you get out of the clerk's way. He answers, but motions you to the instrument. It is the passenger office downtown. The man reads from an order of the Military Bureau:

"Main 12345, with [he reads the consist], en route from Someplace to Camp Anywhere, and routed via AB&C Railroad to Centerville, thence XY&Z System to destination, will be delivered Replogle Yard at 2:30 a. m. tomorrow. You will escort the train. Nice ride to you. See you next trip."

A fireman drives you downtown to the hotel and you leave a call for 1 a. m. You're too tired to eat, but boy, do you sleep! You are awakened in time, order a cab, and depart for Replogle Yard. En route, you treat the cab driver to a full meal; he's entitled to it for finding you a good place to eat at such an hour. The train is reported two hours late. You sit down. You smoke cigarettes. You explore the car shop, roundhouse, yard. Time passes. The train is delivered at 9:30 a. m.

The first thing to do is get your suitcase aboard. If you see the Pullman conductor, he will tell you where your assignment is, and the suitcase can be left there; if you don't see him, put the suitcase anywhere, but *in* the train. And don't sit down; you have work to do. Look up the train commander, introduce yourself, and offer assistance. If he wants anything, write it down, else you'll forget it. He may be indefinite about food requirements, which means you must see the mess sergeant very quickly. You ascertain where the commander is riding, and write that down; his berth or room is train headquarters. The car men are out with ice and are sticking hose into the car tanks. You leave the commander.

Patrol every faucet and toilet in the train to see there is plenty of ice and water. This trip will take you through the kitchen car, where you meet the mess sergeant. He is grateful for a package of cigarettes, says he will need food for evening dinner. You suggest he make a food order and bring it to headquarters as soon as the train is moving. There is a slight bump; the new engine is hooked on. Finish your patrol and get on the ground to meet your train crew. The crew is ready to leave but awaits your okay. Going to headquarters, you learn the commander is ready. No soldiers are wandering about, so you give the word, and at 10:10 a. m. the train moves.

The train conductor is a freight man who says food can be obtained at a city you are due to reach about 4 p. m. He can order it by wire, to be filed some 60 miles out. With him and your Pullman conductor you now visit headquarters. Lift the tickets and pass them to the conductor. The commander signs the form acknowledging his transportation has been furnished. You make out the train conductor's report. The mess sergeant appears with a list of food. Approved by the commander, it is handed to you, and on to the conductor. The Pullman conductor has personally counted the men and vouches for correctness of their number. Otherwise, you'd have to do it yourself. Your routine work is done.

If the commander seems to want it, you stay with him for conversation. If he has work of his own, you leave him. With your conductors you move to the rear of the train where, with the flagman now included, you settle down to the serious business of this trip, which is Running the War, and Running the Railroad. The conductor tells you of his early days as a boomer, points up your rudimentary knowledge of the rule book. Thereafter, you'll never forget the meaning of the whistle signal, one long

Scenes from the O. W. I. movie, "Troop Train."

and two short; hearing it, you'll always listen for the "toot-toot" answer from the other engine. The Pullman conductor moves over all railroads, and tells of recent trips from coast to coast and from the Gulf to Canada.

About noon a soldier backs down the aisle passing paper plates and cups from big boxes held by a following soldier. Right behind them is another man with thick slices of bread and hunks of butter. The passengers reach for their eating tools. Another pair of soldiers carry between them a huge tub about 30 inches deep filled with succulent beef potroast, potatoes, carrots. They ladle it out and they don't stint. They're half way through the car when the first men of the kitchen detail, having finished their distribution, struggle to pass; finally they make it. When the boys reach your end of the car the conductor and flagman really turn on the personality. Are they hungry! And they are fed along with you and the soldiers. Most of the time, they'll eat with their fingers and like it. Fruit is distributed later and everyone is lazy.

The men are forbidden to pass from car to car, cannot ride on platforms. There is no liquor. They may smoke, gamble, sleep, mend clothing, buy candy or ice cream at station stops if they can get the windows opened. They may write letters, postal cards or telegrams. All such messages are gathered by noncommissioned officers and delivered to the train commander for censoring.

At a stop of 30 minutes or more the train commander may order the men exercised. It is quite a picture to see 300 boot-camp graduates, shirts off, performing snappy calesthenics in a railroad yard, led by a lieutenant atop a flat car the yardmaster had obligingly spotted for him. That's one car movement that will never be recorded!

To a good citizen, it is almost inconceivable that there are in America those who would aid the enemy. But all those posters aren't put out for nothing: Loose talk *is* sabotage, and you must not discuss your train's movement with the enlisted men; you must not tell *anyone* where you're going, how many men you have, what the outfit is—or anything else. This is most serious. And curiously enough, it is the only thing that may cause friction between you and the men. They know you are fully informed, and don't like to be brushed off. You soon learn the best way is to explain frankly that you have your orders, just as they have their orders, and you must keep still.

Actually, the boys do pretty well. They can read names lettered on station buildings and locomotives. Out of all aboard there will surely be at least a few who've been here before. Gossip spreads from car to car in some way. The men put two and two together, and are rarely surprised to learn, on reaching their destination, where they are.

At four miles per hour, the train rolls into the camp that is to be home for your soldiers for six days or six months. You look through the car, and see only the stern ends of soldiers; they're all looking out the window in concentrated inspection. You go to the platform for a look yourself. No matter what the hour, many mournful inmates stand near the track to help initiate these newcomers. They moan, "You'll be sorry." They droop theatrically and shake their heads. "Oh, this is a hell of a place. I wish I'd never come here." Nothing like making the younger fry feel right at home!

You bid goodbye and good luck to the train commander and other friends made en route. A cab is available, and you go into town, to the hotel where your company keeps a room for train riders, and phone the office. There'll be nothing moving for 36 hours, so you check into the room. The bellboy who takes you up goes away with dirty clothes for laundering, your suit for pressing. You shine shoes, bathe, shave,

Pullman Company. Santa Fe. Pullman Company.

make out overdue reports for mailing to headquarters. The suit is returned. You dress, drift down to the lobby, and buy a paper. You enjoy a leisurely dinner of your own selection at a table with a cloth. Later there'll be a movie. Next day you sleep until 10 o'clock.

At times, incidents en route and bad luck with schedules can make it a pretty hard life. Several nights in a row of sleeping on trains, sometimes on coach seats, will tucker you out. Something goes wrong with nearly every move. Lights in one coach may go out, and the car men pass you along from division to division with nothing but excuses until the commander finally refuses to turn a wheel until they're fixed. You can see his viewpoint. Uncle Sam is paying heavy money for this transportation and should have the best there is. On the other hand, the railroad is short-handed in every department. Many materials, on priority lists, are hard to get. The cars are being run almost 24 hours a day every day.

A careless soldier may not notice that the toilet valve sticks, and in 30 minutes the car tanks are drained. Your train may be pulled by a freight engine that can't make the scheduled time. Minor illnesses are handled by the medical officer always aboard, but in case of serious ailment you must find the nearest army hospital and means of getting the man to it. It may be the commander's first train and he feels it his duty to inspect the conductor's train orders, ask mileages, running time, and similar weighty questions. Most of them are A-1 swell fellows.

Stops out on line can complicate things. Say you have a string of flats behind your passenger cars. On every flat is a guard of two soldiers. The guard is changed every 12 hours or so. Some soldier may get down on the wrong side and endanger his life by walking down the main line. Reaching the passenger cars, he finds all doors closed. The escort must be alert to every happening.

Santa Fe.

How the British do it.

This is the story of Train 300, a typical cross-country troop-movement operation as handled by the British railways.

Traffic headquarters is informed that 417 soldiers and their officers, with 10 tons of equipment, must be moved from "Campton" to "Blueport" by 6 a. m. the day after tomorrow. The trip will take the train over portions of three of Britain's four mainline railroads. The "initiating company," the railroad on whose track the trip starts, will be father, mother and nursemaid to "300" until all arrangements have been made and the train is moved to the intermediary line, whence it passes to the "receiving company" at the destination end.

Much must be done to smooth the path of "300" over the close-packed railroad system of Britain, and the railway traffic operating expert gets busy the moment the order is received. The run is worked out backwards, the starting time being the last thing to be decided. Because the trip is a long one, the troops will need food en route and halts must be planned where facilities are available. These preparations made, the unit is now told by the military transport authorities that "300" will leave "Campton" at 12:10 hours, that stops will be made at 16:00 hours and 20:00 hours, and that the train will reach "Blueport" at 06:00 hours the next day.

Despite the most skillful plotting, the train, in the course of its journey across Britain, may delay half a dozen passenger trains, but the troops get to their destination on time.

En route at night you may be aroused at any time, and for any reason. Whether it's serious or not, you've lost sleep. This is not your regular territory where you have friends, and in strange towns between trips you are the lonesomest man on earth. You write long, long letters to your wife, your office, friends at home. Sometimes you visit a railroad office and ask for work, just to have something to do. You're too old to be in the army yourself. This is your essential-duty way of helping your country. One good thing about it, there's little monotony!

U. S. Army Signal Corps.

The New Haven's Navy

★ Railroad bridges New York Harbor on car floats.

All pictures from New York, New Haven & Hartford.

To the New Haven's landlocked navy falls the task of moving thousands of cars on car floats across New York Harbor, a major obstacle to the railroad traffic route between New England and the Middle Atlantic seaboard. Passenger traffic may dive under the Hudson and East rivers on one unbroken line of rails in the Pennsylvania Tunnels, but for freight there is no direct rail connection and the only practical method is to float the cars over the water.

The New Haven's fleet is powered principally by 13 steel-hull tugboats of from 600 to 1200 horsepower. Three tugs, or "transfers," as they are called in harbor parlance, are coal-burners; the others use oil. The operations of this fleet, headed by the railroad's marine superintendent, J. Everett Benson, are of major importance today—assuring smooth and rapid handling of freight in the strategic New York area. A personnel of more than 400 men is required by the marine department's operations, and, in addition to tugboat captains and engineers, includes deck hands, floatmen, oilers, firemen, lighter captains and maintenance crews.

The New Haven's "navy" not only transfers the through New England cars, but also services the vast fleet of allied ships putting into the Port of New York for products of American and Canadian factories. Performing vital work for allied shipping, New Haven workers unload emergency freight from cars into lighters, scows and barges at Harlem River. New Haven tugs tow them downriver to shipside and make sure that valuable cargoes go safely up and over the sides of the waiting ships.

Much more important, in the volume of traffic handled, is the job of transporting freight cars by water from the Bay Ridge terminal to the Pennsylvania Railroad at Greenville, N. J., and from Oak Point to the Lehigh Valley Railroad and the Central Railroad of New Jersey, both at Jersey City. This is the routing for many of New England's war products—for machine tools and equipment bound for defense plants in the South and West, for arms and supplies needed by army camps all over the country. Also floated across New York Harbor in this way is much of the raw material bound for New England factories.

Another major job of the New Haven's marine department is the carfloat service from Oak Point to its less-than-carload station at Pier 38, East River, and to various piers throughout the Port of New York. Large quantities of bananas and citrus fruits are carried on New Haven car floats.

This railroad navy operates on a 24-hour day, seven-day week, same as the rest of the rail-

road. South- and westbound freight cars are switched from the yards at Oak Point and at Bay Ridge onto steel carfloats over a floatbridge apron, a movable bridge connecting the yard tracks with the tracks on the car float. When the car floats have been loaded, a sturdy tug moves in between them, lines are made fast, and the sea journey begins.

Flanked by two carfloats, each carrying from 10 to 22 freight cars, the tugs puff their way through river traffic, weaving to either Jersey City or Greenville, where the tugs edge the floats gently into position, then move out from between them and over to other pairs which are loaded and ready for the return trip.

The 11-mile run between Oak Point and Jersey City takes an hour and a quarter to two hours, depending on the tide, and the 3½-mile trip from Bay Ridge to Greenville requires from 35 to 50 minutes. It was the Hell Gate Bridge which made possible this shorter route across the harbor as well as the through passenger connection via the tunnels. Prior to the use of Hell Gate Bridge, freight routed to the Pennsylvania Railroad was floated from Oak Point to Greenville, a distance of 15 miles. Today, however, the cars go direct to Bay Ridge, 20 miles by rail, to be floated 3½ miles to Greenville.

During 1941 more than 2300 cars a day were handled in this strategic area. About three-quarters of these were loaded, and more than half were on the Bay Ridge-Greenville route connecting with the Pennsylvania. Put 2300 cars a day into the usual 70-car freight trains and it's quite a volume for even a busy main line. And yet all these trains are broken up and moved as a matter of routine across the waters of New York Harbor. Quite a task for the New Haven's navy!

Besides its regular work of handling freight cars, the New Haven's fleet performs many other tasks. Completely equipped for fire-fighting, the New Haven's tugs have helped extinguish many waterfront blazes, and tales of rescues by New Haven skippers are numerous. But these incidents, colorful and interesting though they may be, are considered part of the day's job.

Well padded tugs ride between car floats.

With two floats lashed close together at the front and the tug sandwiched between them at the rear, the ensemble forms a V for good maneuverability.

nery, &c.

\TT'S

K,

ERY,

nging

CENT.

et St.,

and handsome

PER,

AFER

[ADES,

tle Shade,

D TASSELS,

Tassels,

ll Kinds,

K OF

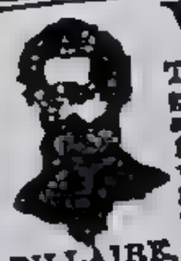
OOKS

I Retail.

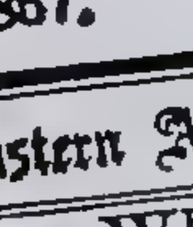
READS JUST

relopes

Eastern Advertisements.



WHISKERS AND MOUSTACHES forced to grow upon the smoothest face in from three to five weeks, by using Dr. LEVIGNE'S RESTAURATEUR CAPILLAIRE, the most wonderful discovery in modern science, acting upon the Beard and Hair in an almost miraculous manner. It has been used by the *elite* of Paris and London with the most flattering success. Names of all purchasers will be registered, and if entire satisfaction is not given in every instance, the money will be cheerfully refunded. Price by mail, sealed and post-paid, $1. Descriptive circulars and testimonials mailed free. Address BERGER, SHUTTS & CO., Chemists, No. 265 River street, Troy, N. Y., Sole Agents for the United States.
March 26, 1867. mar25-dawly



BEAUTY.—Auburn, Golden, Flaxen and Silken CURLS produced by the use of Prof. Dr. BREUX'S FIRBER LE CHEVEUX. One application warranted to curl the most straight and stubborn hair of either sex into wavy ringlets, or heavy massive curls. Has been used by the fashionables of Paris and London, with the most gratifying results. Does no injury to the hair. Price by mail, sealed and post-paid, $1. Descriptive circulars mailed free. Address BERGER, SHUTTS & CO., Chemists, No. 265 River street, Troy, N. Y., Sole Agents for the United States.
March 26, 1867. mar25-dawly

EXCELSIOR! EXCELSIOR!

CHASTELLAR'S

HAIR EXTERMINATOR!

For Removing Superfluous Hair!

To the ladies especially, this invaluable depilatory recommends itself as being an almost indispensable article to female beauty. Is easily applied, does not burn or injure the skin but acts directly on the roots. It is warranted to remove superfluous hair from low foreheads; or from any part of the body, completely, totally and radically extirpating the same, and leaving the skin, soft, smooth and natural. This is the only article used by the French, and is the only effectual depilatory in existence. Price 75 cents per package, sent post-paid to any address, on receipt of an order, by

BERGER, SHUTTS & CO., Chemists,
mar25-dawly 265 River St., Troy, N. Y.

AFFLICTED!

Suffer No More!

When, by the use of Dr. JONVILLE'S ELIXIR, you can be cured permanently, and at a trifling cost.

The astonishing success which has attended this invaluable medicine for Physical and Nervous Weakness, General Debility and Prostration, Loss of Muscular Energy, Impotency, and any of the consequences of Youthful Indiscretion, renders it the most valuable preparation ever discovered.

It will remove all Nervous Affections, Depression, Excitement, Incapacity to Study or Business, Loss of Memory, Confusion Thoughts of Self-Destruction, Fears of In-

FIRST DIVISION

ST. PAUL AND PACIFIC

RAILROAD.

SUMMER TIME TABLE.

On and after Monday, April 8th, 1867, Passenger Trains will run as follows:

GOING WEST.			GOING EAST.		
Leaves St. Paul	8:00 a m	2:40 p m	Leaves St. Cloud	7:00 a m	5:00 p m
" St. Anthony	8:45 "	3:25 "	" Clear Lake	7:30 "	5:30 "
" Manomin	9:20 "	4:05 "	" Big Lake	8:10 "	6:10 "
" Anoka	9:40 "	4:25 "	" Elk River	8:45 "	6:45 "
" Itasca	10:00 "	5:00 "	" Itasca	9:05 "	7:05 "
" Elk River	10:20 "	5:25 "	" Anoka	9:40 "	7:40 "
" Big Lake	10:50 "	6:00 "	" Manomin	10:15 "	8:15 "
" Clear Lake	11:30 "	6:40 "	" St. Anthony	10:55 "	8:55 "
Arrive St. Cloud	12:00 m	7:10 "	Arrive at St. Paul	11:30 "	9:30 "

St. Paul, St. Anthony and Minneapolis Trains.

LEAVE ST. PAUL		LEAVE ST. ANTHONY DEPOT.	
8:00 a m,	8:45 a m,	9:20 a m,	10:50 a m,
2:40 p m,	4:00 p m,	5:35 p m,	6:40 p m.
6:45 a m,		7:20 a m,	
1:00 pm,		1:40 p m,	

Purchase tickets at the Stations before entering the cars at a discount from the regular train rates.

Passengers must get their Baggage checked before it will be carried over the road, and on the arrival of the train at place of destination must present the check and take possession of their baggage.

☞ The Company will not be responsible for the safety of any baggage after its arrival at station for which it is checked, it being no part of the business of this Company to receive and store baggage, unless a special contract is made to that effect.

☞ The Minnesota Stage Company run a daily line of Stages up the Sauk Valley to Sauk Centre, and tri-weekly to Fort Abercrombie; also, tri-weekly to Little Falls, Fort Ripley and Crow Wing, leaving St. Cloud, Tuesdays, Thursdays, and Saturdays at 7 a. m.

J. H. RANDALL, General Ticket Agent. F. R. DELANO, Superintendent.
ap7-dtf

TIME IS MONEY!

Six Trains a Day

EACH WAY!

Shortest, Quickest & Cheapest Route

BETWEEN

MINNEAPOLIS, ST. ANTHONY, AND ST. PAUL'

BY THE

FIRST DIVISION

St. Paul and Pacific R. R.

TRAINS LEAVE ST. PAUL DEPOT:

8:45 a m,	8:00 a m,	8:45 a m,
1:00 p m,	2:40 p m,	4:00 p m.

LEAVE ST. ANTHONY DEPOT:

7:20 a m,	9:20 a m,	10:50 a m,
1:40 p m,	5:35 p m,	6:40 p m.

F. R. DELANO, Sup't.

J. H. RANDALL, General Ticket Agent.
April 4 1867. ap4-dtf

RAILROADS.

MINN. CENTRAL RAILWAY.

1867. — 1867.

Spring Running Arrangement.

ON FRIDAY, May 24th, 1867, and thereafter, Trains will move as follows:

EASTERN EXPRESS.

GOING SOUTH.

Leave Minneapolis	7:10 a. m.
Leave West St. Paul	7:15 "
Arrive at Owatonna	11:00 a. m.

GOING NORTH.

Leave Owatonna	11:40 a. m.
Arrive Minneapolis	3:00 p. m.
Arrive West St. Paul	3:35 "

Making direct connections at Owatonna with trains of Winona and St. Peter Railroad for Winona, La Crosse, Milwaukee, Chicago, and all points East and South.

ACCOMMODATION.

Leave Owatonna	7:25 a. m.
Arrive West St. Paul	1:10 p. m.
Arrive Minneapolis	1:35 p. m.
Leave Minneapolis	9:50 a. m.
Leave West St. Paul	10:10 "

Minneapolis *Daily Tribune*, now the Minneapolis *Morning Tribune*.

Early Great Northern schedules.

The newspapers of several generations ago carried numerous railroad schedules on their advertising pages, along with the announcements of hair curlers, mustache growers, hair removers, and patent medicines. These timetables date from 1867, six years before Jim Hill, with a borrowed $500,000, bought the little St. Paul & Pacific as the start of what was to become the Great Northern.

The Jim Hill Country

★ Minnesota railroads are still flavored by the saga of the Empire Builder; a prize-winning article.

By George Cecil Cowing.

We checked out of the Radisson* Hotel in Minneapolis to catch the Great Northern's No. 11, the *Alexandrian,* for Fergus Falls. It was a pleasant early-July morning in 1941.

Thus began for me a nostalgic adventure. I was born in Fergus Falls, in northwestern Minnesota. This was to be a fleeting return of the prodigal after many years in southern California and other places in the Far West. For my wife and boy it was all new, this journey into the Jim Hill country.

If, in a way, I might have wished for more luxurious rolling stock on which to make my re-entry into my old home town, there was about the *Alexandrian* a certain fitness for the occasion; it was not greatly unlike the Great Northern train on which, as a boy, I had made my first memorable trip from the up-country to St. Paul a half century ago. Cars and locomotive were not the same, to be sure, but the routine was not essentially changed. The *Alexandrian,* pulled by a neatly manicured 2-6-2 Prairie and with a two-car consist, was a delightful peddler passenger train. It dutifully stopped at all the stations to juggle passengers and express. The crew highballed agents and townsfolk with the greetings of old friends. Our company of passengers seemed, like the crew, to be of the countryside: railroad men deadheading to St. Cloud; a group of nuns bound from St. Paul to their institutions at St. Joseph; business men returning from the Twin Cities to their homes in Sauk Centre (Sinclair Lewis' town, and the inspiration of his "Main Street"); a farmer and his wife who got off at Melrose; fishermen en route to the lakes near Alexandria; drummers going to Fargo.

The coach was an old-timer. The fixed seats had been removed and replaced by a regimented lane of wicker chairs, two abreast on each side of the aisle. At one end space had been left

* Named for a French trader who, with Grosseilliers, was believed to have been the first white man to visit Minnesota, about the middle of the seventeenth century. A quarter century later came Father Hennepin and DuLuth.

for a dining table and a lunch counter, where, at noon, a young man produced coffee and delectable chicken pie from the Great Northern commissary in St. Paul. Watching over us with paternal kindliness was a benign conductor, with the hash marks of a veteran of the line on his sleeves. We passed picture-book farms with green fields and red barns, skirted lovely lakes, halted at towns fringed by stations and section houses painted in the olive green of the GN. Yes, it was a pleasant journey, and quite fast. We left Minneapolis at 8:45 a.m. Precisely at 1:29 p.m. the benign conductor lifted our luggage off the steps and deposited us on the station platform at Fergus, 174 miles from Minneapolis. When I was a boy the train journey took all day, punctuated at noon with lunch from a shoe box.

Now, the Great Northern is a great railroad operating over 8000 miles of road in nine states and Canada. It has plenty of smart varnish and services. Its fleet of hogs runs the gamut; there are all types to stir the hearts of fanciers of locomotion. But the line's crack transcontinental train, the *Empire Builder,* no longer runs over the original route via St. Cloud, Alexandria, Fergus Falls, and Barnesville. Elmer E. Adams, dean of northern Minnesota bankers and publisher of the Fergus Falls *Daily Journal,* told me the reason for this. Great Northern engineers decided that the old main line looped around too many lakes, making for costly operation and slowing schedules; and so, in latter years (since 1931), the transcontinental traffic has been routed from the Twin Cities to Fargo via Willmar, that route presumably offering fewer lakes and a straighter trajectory. Consequently the *Alexandrian* and the *Winnipeg Limited* (a night train between Winnipeg and the Twin Cities) are the only Great Northern passenger trains now scheduled through my old home town. (A daily motor train originates in Fergus, running up the 22-mile branch line to Pelican Rapids, a haunt of sportsmen.)

However, the fact remains that through Fergus Falls ran the original Jim Hill country. Hewing and grading this part of northwestern Minnesota, the rugged man who was to become world-famous as the Empire Builder laid his first rails. It was in this part of the country that the Scotch-Irish executive, born in a Canadian log cabin, who by his energy, thrift, and vision parlayed a St. Paul warehouse into three great railway systems (Great Northern, Northern Pacific, and Burlington), scored his first success as a railroader. He and his associates acquired the old St. Paul & Pacific, and he went on from there. This was in 1878. The St. Paul & Pacific mainly lurked about the Twin Cities, not going anywhere in particular, but it possessed the first locomotive to enter the state, the *William Crooks.* Naming his corporation the St. Paul, Minneapolis & Manitoba, Jim Hill pushed the railroad northwest and west. In six years he laid 1500 miles of new track. In 1890, after many lesser roads of the region had been absorbed, the name was changed to the Great Northern Railway. By 1893 he had thrust his line to the Pacific Coast and it had become the Great Northern System. It was James Jerome Hill's show.

MY PEOPLE, emigres from England, were established in Alexandria some years before Jim Hill's St. Paul, Minneapolis & Manitoba reached the town. My father and his wife mushed on by freight team from the parental base at Alexandria to establish a country trading post in a then-remote section of Otter Tail County. There they dispensed groceries and calico to the Indians and the newly arrived Norwegian settlers, who named the crossroads St. Olaf. My father, prospering at this outpost, acquired a deal of land.

Presently Jim Hill came along, seeking the right of way for the railroad.

"Cowing, I want to buy your land," the railroader said to my father.

"I don't want to sell," was the reply. My father inherited a stubborn English determination to keep the land in the family.

Hill came back again. He and his engineers were keen about going through that particular terrain. But he and my father never could see eye to eye and never came to terms. Hill then went farther south and built the line through Fergus Falls.

As it was, the building of the railroad drew trade to the settlements along the iron and left St. Olaf marooned. My father accepted this fact. With a sizable sum in his poke, he moved his family into Fergus Falls, where he opened a hardware store. Fergus was booming with the advent of the railroad; new settlers were moving into the town and the surrounding land.

My father built a baroque house on a high terrace above a lake on the northern edge of the community. It was in this house that, years later, I was born. The house, trigly maintained, was standing on its terrace in 1941.

From the terrace I now looked across Lake Alice, a familiar vista of my childhood. The breeze that came out of the north was agreeably cooling. It was a fair hint of what that north wind off the lake could be in the dead of Winter. Then the lake would be frozen solid and would be a shortcut to town for farmers and their teams. I could see them now, coming in with loads of cordwood, the farmers' whiskers and the horses' snouts white with frost that formed as the moisture of their breaths froze. And then I could remember, after a big blizzard, how GN locomotives, shoving the pusher type of snow plow, huffed and puffed in the deep cuts west of Fergus to reopen the line. Those blizzards were something! Fergus is really on the border between the lake country and the Northwestern prairie.

In many ways Fergus Falls had not changed at all. I swear that the tinkle of the locomotive bell on NP No. 112, the eastbound passenger train, had precisely the same timber as when I was a nipper. To me it always had a sad, lonely sound. Although the NP tracks were 'way across the river to the south, you could hear the bell plainly in the still air of the little city. Fergus Falls had grown from 5000, when I was a youth, to its present population of 10,848 individuals; the flour mills had been augmented by a sash and door factory.

The train we heard from the lake shore was not one of the Northern Pacific's fast flyers. This was just a branch line. The branch left high iron at Wadena and jutted through Fergus Falls and Breckenridge and Oakes, N. D., to Jamestown, and back to the main line. The NP operates a local passenger train between Oakes and Minneapolis-St. Paul.

When, after a couple of days, we took a final look at Lincoln Avenue and the Picket Block and departed for the Twin Cities, we were again aboard the *Alexandrian,* shepherded by the same fatherly conductor. We were bound for St. Paul this time. Leaving Fergus at 2:40 p. m., we were due in the state capital at 8 p. m.

The Otter Tail River bends at the south end of town. We crossed it and were in the locale of the original station and yards (later moved northward) where some mustached gents from Baraboo, Wis., the Ringling Brothers, used to unload their circus every Summer.

The *Alexandrian* crossed the tracks of the Northern Pacific branch line and presently, at

Great Northern local through St. Cloud.

The *Alexandrian* runs northwest from St. Paul through the city with the romantic name of St. Cloud. Here another Great Northern line crosses, headed toward the tip of Lake Superior, and on this road runs train No. 31, a two-car local passenger train much like the *Alexandrian.* It is shown here coming into St. Cloud in the low, bright sunshine of a crisp Fall morning.

W. R. McGee, 418 N. B St., Livingston, Mont.

Coming--another watercolor.

Next month TRAINS will feature another full-color reproduction of a railroad watercolor across its center two pages. Painted by Kent Day Coes in bright, sharp technique, it shows a New York, Ontario & Western freight train in the railroad wonderland of southern New York [TRAINS, June, 1942].

Alexandria itself, would cross the tracks of the Minneapolis, St. Paul & Sault Ste. Marie (Soo Line), a Johnny-Come-Lately to the Jim Hill country, comparatively speaking. When I was young, Alexandria was exclusively a Great Northern station, as St. Paul was (and is) distinctively a Jim Hill city.

ST. PAUL, one of the country's premier railroad towns, is strongly steeped in the flavor of the Empire Builder tradition. It is the eastern terminus of both the Great Northern and Northern Pacific, although both roads operate through passenger trains to and from Chicago over the Burlington, most of whose capital stock they jointly own.

The Northern Pacific was a transcontinental railroad before the original Hill empire was completely constructed. In 1883 was held a spike-driving ceremony in Montana which marked the joining of the NP rails laid from St. Paul on the east and the Pacific on the west. Commemorating the event, shortly thereafter, was a thumping Northern Pacific banquet at the old LaFayette Hotel in St. Paul. Chester A. Arthur, then President of the United States, was present, as were Tad Lincoln, General Phil Sheridan, and other celebrities of the time.

It was Henry Villard who had resuscitated the Northern Pacific following the Jay Cooke financial debacle in 1873, an episode which had bankrupted the road. Villard brilliantly rehabilitated and operated the Northern Pacific, but he remained to Northwesterners, it seems to me, a remote financial figure, whereas Jim Hill started from scratch in St. Paul. It is not strange, then, the feeling that St. Paul is so peculiarly Jim Hill's city.

While the Empire Builder made his impress of progress and heads-up railroading in many localities, it was from St. Paul that he directed his strategy. There he dreamed his dreams—and made them come true. He had come to St. Paul from Canada as a lad, got his first job as a boss of stevedores for a packet line of Mississippi steamers. In St. Paul he subsequently became a warehouse man on his own, and made his first foray into transportation by initiating trade, by team, oxen, and Red River boats, with the Canadian border. Then, later, it was in St. Paul that he enlisted capital to help him buy the St. Paul & Pacific, and it was in St. Paul that he planned the building of what was to become the Great Northern Railway.

In his general offices, shrewd Jim Hill pondered the potential importance of the Minnesota iron lands, north of Duluth. He was reluctant to entice his railroad stockholders into the hazard of buying such lands, so he bought huge tracts himself and then distributed shares in the venture to Great Northern stockholders. He extended the Great Northern tracks to Hibbing and Virginia on the Mesabi Range. Today, in the iron ranges, is carried on some of the most dramatic railroading in the world. Over 60 per cent of the U. S. output of iron ore must be shipped out from northern Minnesota. Hill's Great Northern lines share in the spectacular performance with United States Steel Corporation's lively Duluth, Missabe* & Iron Range. This latter road is a consolidation of the same owner's Duluth, Missabé & Northern and Duluth & Iron Range. The two railroad systems literally dive into the open-pit mines, largest of their kind in the world; load ore in the especially constructed ore cars and, powered by gigantic 2-8-8-4's, with a clank and a roar, roll incredible trains down the hills to the Lake Superior waterfront. At huge DM&IR docks in Duluth and Great Northern docks at Allouez, on the Wisconsin side, the trains shunt the rich ore into the holds of ore boats bound for the steel mills of Pittsburgh or Gary.

FROM Great Northern headquarters Hill matched empire-building with his great and able rival, E. H. (Union Pacific) Harriman, for control of the Northern Pacific. In this enterprise he nosed out the Union Pacific entrepreneur. And from St. Paul he successfully acquired control of the Chicago, Burlington & Quincy, which gave his lines access to Chicago and to business on the Mississippi in competi-

* It will be observed that the Steel Corporation's railroad title spells the range "Missabe," whereas maps name it the "Mesabi"; and it is interesting to note that while the railroad firmly retains "Missabe" in its title, it accedes to "Mesabi" in its descriptive literature. A town on the line is known as "Mesaba."

W. R. McGee.

Ore empties near Duluth.

Great Northern joins with other roads in hauling millions of tons of vital iron ore to the Lake Superior docks, where it is loaded into ships for the journey down the lakes to the railheads of the Pittsburgh area. Here a train of 175 empties goes up to the Mesabi Range through Cloquet, Minn. Returning to Duluth the load will gross 15,750 tons—some train!

tion with the UP via the Burlington line from Omaha to Billings, Mont.

To me, St. Paul's Summit Avenue, widely celebrated in empire-building days as the epitome of residential elegance, remains the greatest of all reminders of Jim Hill. On Summit Avenue railroad tycoons, bankers, and rich traders had their homes, the Empire Builder's the largest and sightliest of all. True, the Kittson mansion, the dwelling of one of Hill's early associates, was more strikingly poised, at the very crest of what St. Paul people call "The Hill." But the J. J. Hill castle had more spacious grandeur. Townspeople in their phaetons, showing country cousins the town, paused at the curb in front of Jim Hill's house so that the visitors might look through the iron grill of the fence in awe-struck admiration.

Summit Avenue and the somewhat less plush streets on The Hill looked down then, as they do today, upon St. Paul's business district and railroad yards, beside the Mississippi. Gone is the drafty barn that was the old Union Station, but the handsome new station is redolent of Jim Hill, too; his three roads were the chief sponsors of it, but all the railroads entering St. Paul use it. Its size and the deft train manipulations in the great yard give it tremendous fascination for railroad fans.

In Minneapolis, Jim Hill reminders are more diffused, less dominant. In the flour capital, home of the famous Pillsbury and Washburn mills, where tracks pass the Gargantuan gins that grind wheat from the Hill empire, the Great Northern has a new and substantial sta-

Jim Hill knew these engines.

Eight-Wheelers 199 and 194 date from the early 1880's, when Jim Hill was pushing westward and "knowing" people still smiled at his ambition to reach the coast. The 194 was photographed while on its way to the boneyard in 1941.

Top, R. W. Biermann, 4338 20th St., San Francisco, Calif.
Bottom, Clarence Adams, 201 6th St., N. E., Minot, N. Dak.

First transcontinental train.

The story of the *Jarret & Palmer Special*, in the December 1942 TRAINS, stated that the train was, "so far as is known," the first through transcontinental train. No information was available as to any other transcontinental train when the story was written, but since then we received from the *Pullman News* a photostatic copy of *Trans-Continental* dated May 24, 1870. This journal, said to be the first newspaper printed aboard a train, "covered" the trip of the first transcontinental train, *The Pullman Hotel Express*, which carried 130 members of the Boston Board of Trade and their families on a round trip from Boston to San Francisco, from May 26 to July 1, 1870. Eight elaborately furnished cars made up the train.

tion used by itself and several other roads. The remaining roads entering Minneapolis use the Chicago, Milwaukee, St. Paul & Pacific depot, several blocks away.

SEVERAL systems lend colorization to Minneapolis. General offices of the Soo Line and the Minneapolis & St. Louis are situated there. The Soo Line is a Canadian Pacific enterprise designed to capture some of the commerce in the Great Lakes area for the vast Canadian system. In 1893 it completed the Soo from Sault Ste. Marie on the tip of Michigan to the Twin Cities and up through Dakota to join CP high iron at Portal. Later, in 1909, the Soo obtained an outlet to Chicago by leasing the Wisconsin Central. Ever since its construction the Soo Line has been in hot water financially, largely due to unprofitable branch lines. Since 1937 this large system (4277 miles) has been in trusteeship. Present war business ought to help to rejuvenate the Soo soon, however.

Minneapolis is, particularly, the habitat of the Minneapolis & St. Louis, whose lines do not extend to St. Paul. The M&StL was one of those frustrated railroads; it never reached St. Louis, but terminated at Albia, Ia., where it made casual liaison with a Wabash line running to St. Louis. The M&StL also has a line to Des Moines, and west from Minneapolis a line wandering off to Watertown and Aberdeen, S. Dak. But stemming from the line south is main iron to Peoria, Ill., which is its main source of freight traffic and the inspiration of the M&StL slogan, "The Peoria Gateway Line." Present wartime advertising stresses advantages obtained by specifying M&StL routing in that it avoids congested areas and makes for speedier freight service.

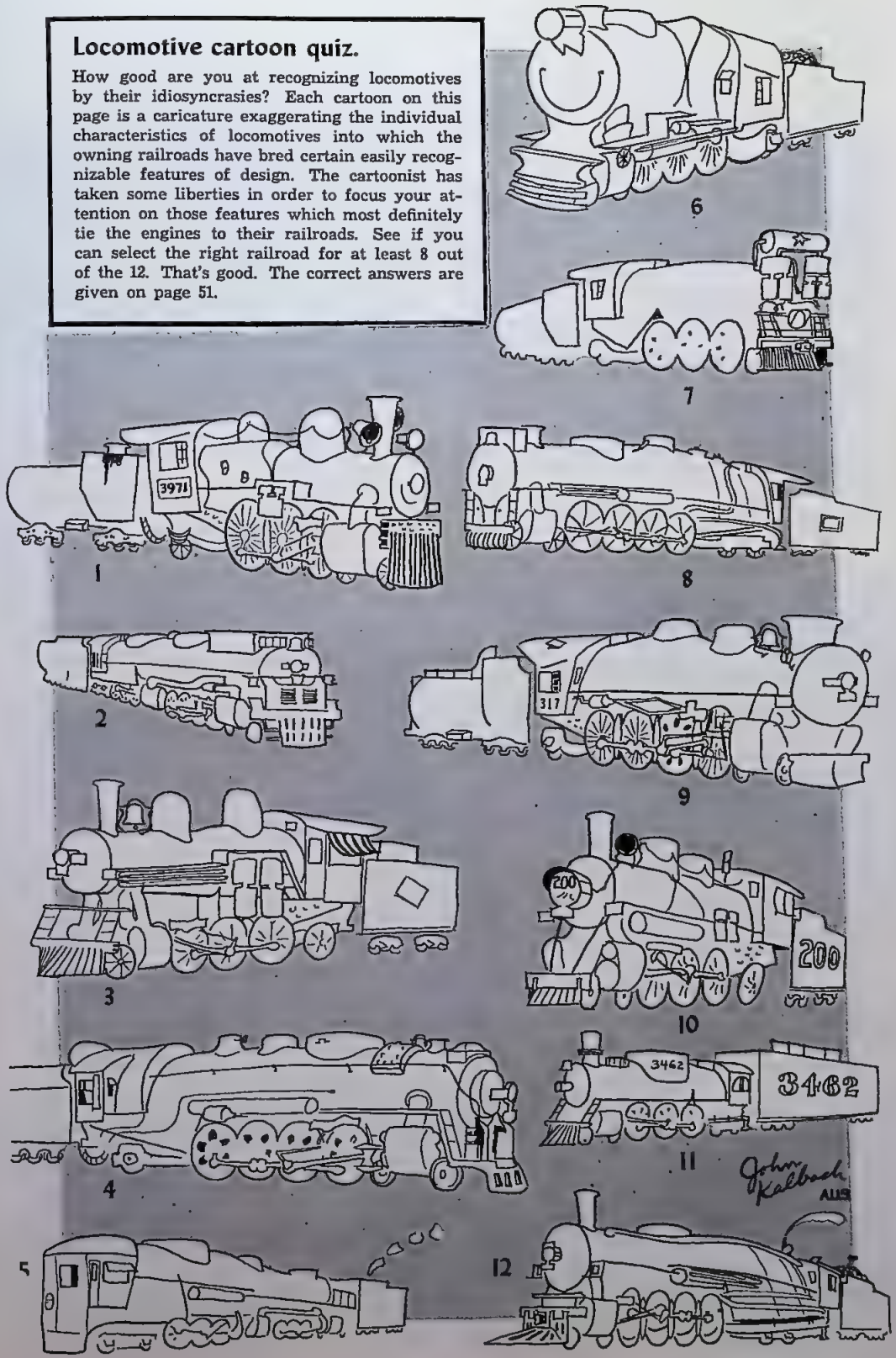
When I was a callow youth of college age the Cedar Lake shops of the Minneapolis & St. Louis were a familiar sight to me. And the trains to Lake Minnetonka! In those days M&StL trains were the accepted vehicles in which to squire pretty girls to the lake. The Minneapolis & St. Louis has a sentimental interest for me, and I enjoyed a sort of personal satisfaction when President L. C. Sprague and his associates recently rescued it from its long receivership (since 1923) and gave it a new lease on life. [December 1942 TRAINS.]

I get a similar glow from the financial and operational regeneration of another Minnesota road beloved in my youth—the Chicago Great Western. When I was a boy the Chicago Great Western called itself the "Maple Leaf Route" and featured a striking poster of a negro porter pointing out the attractive traffic petals of the leaf. The petals were labeled "Chicago," "Kansas City," and "Omaha." I settled for Chicago, making my second trip to Chicago on the CGW. (My first trip had been made over the Wisconsin Central.) In this day the general offices of the CGW were on the upper floors of the Metropolitan Opera House in St. Paul. It seemed to me a happy juxtaposition. It would be very handy if I were general passenger agent of "The Maple Leaf Route," I thought, to go from my office directly into the "Met," to see the show. Alice Neilson in "The Fortune Teller," perhaps. Now the Chicago Great Western, discarding the Maple Leaf, has become the "Corn Belt Route" and has its general offices in Chicago.

The Chicago, St. Paul, Minneapolis & Omaha, related to the Chicago & North Western and long since operated as part of that system, is also a part of Minnesota railroad lore, as are also the Milwaukee and the Rock Island. But these have never seemed, to me, a true part of the Jim Hill country's railroad heritage. To Hill the Twin Cities were a base of operations, and to the Twin Cities the Hill roads, and those with which they grew up, are the home-town lines.

Locomotive cartoon quiz.

How good are you at recognizing locomotives by their idiosyncrasies? Each cartoon on this page is a caricature exaggerating the individual characteristics of locomotives into which the owning railroads have bred certain easily recognizable features of design. The cartoonist has taken some liberties in order to focus your attention on those features which most definitely tie the engines to their railroads. See if you can select the right railroad for at least 8 out of the 12. That's good. The correct answers are given on page 51.



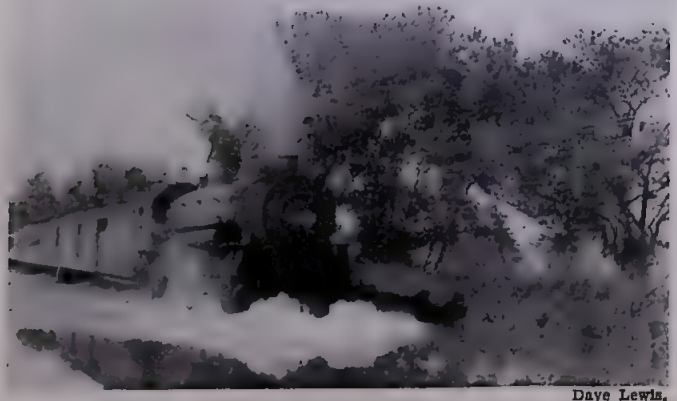
Dave Lewis, 609 Kellogg, Peoria, Ill.

Flood Scenes Near Peoria

THE unusual-looking 2-8-0 steamboat above is a Rock Island switcher, with side-door caboose used in switching and terminal service, photographed only a block and a half from the Peoria (Ill.) passenger station. The Rock Island was worst hit of all Peoria roads during the Illinois River flood late in May. For several days the Diesel-powered *Rocket* was pulled off the Peoria run, as it was too low in the water, and a steam train (top, left) made the run as far as Bureau, from where the *Rocket* went on to Chicago.

The lower photo at left shows the last, for several days, New York Central train out of Peoria for Indianapolis, taken on Peoria & Pekin Union tracks along the east shore of the Illinois River just south of the city. Until the water receded, NYC trains operated only as close to Peoria as Pekin, nine miles south.

This same flood slowed and complicated railroad operations over a vast area of the Midwest. Rerouting of trains and embargoes on freight were more the rule than the exception, and yet traffic did get through. Railroads may be the most bitter competitors, but when trouble comes they help each other generously. The C&EI, for instance, handled more than 32 trains of other railroads.



Dave Lewis.

Here's one thing that *does not* cause higher prices

FOR many reasons, the prices of most things you buy are higher today.

But railroad freight rates are not one of the causes.

The fact is, railroad freight rates generally are not higher today than before the war. Many are actually lower, and the average amount received by the railroads for each ton they haul is the lowest in the past quarter-century.

At these low rates, the railroads are called upon to meet the increased operating costs due to higher wages and higher prices for what they buy. They are also, of course, paying increased taxes.

And we think this further fact is important to know.

The strain of war is wearing out railroad equipment—wearing out cars, locomotives, and the tracks over which more than 1⅔ million tons of freight move a mile every minute of the day and night.

Some day, all this will need the sort of replacement which is not possible in these days of war shortages. It will take billions of dollars to do that job—just as it took billions to bring the railroads to their present high efficiency.

To do this with railroad money, the railroads must therefore have a chance now to provide for the future, so they can keep on furnishing America with the finest transportation in the world.

Richard E. Prince Jr., 1141 Larchmont Crescent, Norfolk, Va.

Railroads in the Southeast.

The Southeastern states abound in railroad interest, especially around Atlanta, the railroad city of the South. It was Atlanta's importance as a railroad center, you recall, which made it so important in Civil War strategy. It is still, with eight lines, just as important in railroad operating and traffic strategy. Above, the Southern's *Florida Sunbeam* doubleheads northbound out of Atlanta, headed for Chattanooga, Cincinnati,

W. M. Bryan, Durham, N. C.

William Moedinger Jr., 23 E. Vine St., Lancaster, Pa.

and Chicago. At lower right is another juicy slice of action from the capital city of Georgia, the Central of Georgia's train No. 20 leaving Atlanta for Columbus, Ga., on the Chattahoochee River, boundary line with Alabama. Going farther east, one finds the very intriguing Piedmont & Northern, a heavy electric railroad with a distinctive personality (above). Farther east, too, is the main north-and-south line of the Seaboard Railway, along which fast Florida-New York trains are whisked by three-unit Diesels such as that on the *Orange Blossom Special* (below, left).

Richard E. Prince Jr.

Ten-Wheelers of 1890's

Collection of the late Arthur Curran.

By the late Arthur Curran.

THE year 1890, and those following, witnessed interesting developments in the Middle West, involving freight as well as passenger service. Due to the nature of the traffic in some localities, "drag" jobs were not satisfactory, "time" freights being required. To handle the latter, the Ten-Wheeler or 4-6-0 was favored.

In 1892, Baldwin built some very neat engines of this type for the Chicago, Milwaukee & St. Paul, of which No. 820 (opposite page, top) is an example. Engines of this class were very satisfactory for the purpose intended, and also proved useful in certain kinds of passenger service. No. 820 had 18" x 26" cylinders, 62" drivers, and 180 pounds steam pressure. She weighed 117,000 pounds and her tender had a capacity of 3800 gallons of water and seven tons of coal.

About the same time, Brooks built some Ten-Wheelers for the Burlington, Cedar Rapids & Northern [Rock Island], exemplified by No. 105. Cylinders were 18" x 24" and the engine was otherwise somewhat smaller than the Milwaukee engine.

In 1896 Brooks developed a striking new design which was followed consistently thereafter except when customers demanded their own designs. No. 71 of the BCR&N was one of this new design, with 18" x 26" cylinders, 68" drivers, and weight somewhat greater than the 117,000 pounds of the Milwaukee 4-6-0. No. 71 was for passenger service.

Another Brooks locomotive of this period was the Baltimore & Ohio South-Western No. 131 (above), an American or 4-4-0 type. Weighing 103,700 pounds, 131 had 18" x 24" cylinders and 67" drivers.

PRECEDENCE
TO SIGHTSEERS

Sightseers in Khaki and Blue are given travel precedence now. And so is their luggage—not the knapsacks and duffle bags they take with them, but the heavy luggage—the tanks, planes, armaments and munitions that are a part of their world-wide travels. Non-essential passenger traffic has taken a "back-seat" (when any seats are left) so these defenders of Freedom can complete their mission with speed and thoroughness.

Chicago & Eastern Illinois Railroad

C&EI

The Man in the Tower

By Edward Hungerford.

THIS department is more than pleased to report officially the demolition of the ugly iron fence that formerly extended the entire length of the concourse of the St. Louis Union Station and successfully hid the handsome streamlined trains lined up under the vast trainshed of that terminal—trains which had been streamlined and colored chiefly for the edification of the thousands of travelers each day. . . . It also is a pleasure for the Tower to report that the handsome old station at last has had its face lifted. As a part of the beautifying process, the fence went to the scrap heap. Perhaps the Japs will appreciate it more than did the St. Louisans.

Now the many fine trains underneath the train shed—with its 42 parallel tracks upon one level, the greatest in all the world—stand like John Powers' models, awaiting the approval of discriminating travelers. They are a fine lot of girls that are gathered there each morning, close to 9 o'clock—the *Mark Twain Zephyr* of the Burlington and the *Abraham Lincoln* of the Alton, the *Green Diamond* of the Illinois Central, the *Eagle* of the Missouri Pacific and the *National* of the Baltimore & Ohio, the *Southwestern* of the Big Four (New York Central) and the *American* of the Pennsylvania. Seven handsome ultra-modern trains, gay in all the colors of the rainbow, spic and span, standing side by side. These and many more. You hardly could find the like in a year of steady travel. It is a railroad pageant beyond compare. And now the big black forbidding curtain has been drawn away—forever. St. Louis Station is unmasked.

You may laugh about this matter of color in trains, but the Towerman has great faith in it. He knows that for many years the Milwaukee ran the only brightly colored trains between Chicago and the Twin Cities and for that reason he always gave it the preference over the other two excellent roads that connect the three cities. . . . Some one in the management of the Chicago & North Western must have had the same sort of thought, for within the past two or three years the "400's" of that road have blossomed out anew, in the English-coach yellow that for years made the passenger trains of the North Western distinctive in its territory. It is a definitely different shade than the pumpkin yellow of the Milwaukee.

Some years ago the Man in the Tower was employed by the New York Central, and while there he had the opportunity of helping place two excellent day trains in full color on the lines west of Buffalo. For them he chose the fine livery of the Great Western of England—coffee with cream and coffee without cream. Running between Chicago and Buffalo and between Cincinnati and Detroit, they attracted much attention. . . . Came the Great Depression and the trains were removed. Their cars went back to the dingy, hearselike green-black of most of the Eastern railroads. . . . More recently the Central has been trying to evoke a distinctive color scheme of its own for its passenger equipment. Experiments have been made in two shades of gray—rather colorless and uninteresting; after that, a deep brown with a gold stripe along the body—very handsome indeed. . . . At the same time the Boston & Maine has been changing its standard color to the fine red that is now as traditional with the Pennsylvania Railroad as is its keystone emblem.

RETURN, if you will, to the Union Station in St. Louis:

They have done a lot more to it of late than merely tear away that ugly blot of a fence along the concourse. They have streamlined and redecorated and rearranged and refurbished the entire headhouse of the fine old station until it is more than a credit to the 17 railroads that it serves—railroads which between them each day operate more than 200 through passenger trains in and out of its train shed, a number which of late has been considerably increased by the constant flood of troop trains bound through St. Louis to and from the Southwest.

The present St. Louis Station was built in 1894. It replaced an antiquated affair in 12th Street which for years past had been most crowded and uncomfortable. Only the old Kansas City station down on the flats could rival it in extreme human discomforts. . . . At about the same time the smoke-filled tunnel under downtown St. Louis, leading to the famous Eads Bridge—that tunnel another horror to the traveler of a half-century ago — was supplemented and largely replaced by the fine new Merchants Bridge, six miles to the north. This was reached by an elevated railroad built along the levee of the Mississippi, and so, for much of the traffic to and from the East, the smoky tunnel was finally avoided. . . . More recently another pathway has been opened across the Mississippi at St. Louis. This is the so-called Free Bridge south of the Eads, and, like the Eads, operated for both highway and railway traffic. Already trains of the Pennsylvania and of the Baltimore & Ohio are using it, and in the course of a very short time the Eads Bridge and the tunnel will be closed forever to passenger traffic. . . . But the Eads will continue to stand stoutly to highway use. Regarded at the outset as a triumph of engineering in the United States, for more than 75 years it has handled a fearsome traffic. Few other bridges in America can show such a record. It is indeed a monument to the James B. Eads

who first brought it into being and who astonished the land by successfully bridging the Mississippi at St. Louis.

ST. LOUIS UNION STATION took two long years to build. When it finally was finished and opened to service it was something of a triumph itself. Fabricated of enduring stone, its Romanesque facade extended for over 600 feet along Market Street, and was flanked by a lofty clocktower rising 247 feet from the sidewalk. This tower long since has become one of the distinctive landmarks of St. Louis. . . . The city in recent years has grown gracefully up to its great gateway. The grimy little red-brick houses and cheap shops and "greasy spoons" that used to face it have been removed and in their place has come a fine open square, filled with the much-discussed Milles fountain and statuary. St. Louis Union Station at last has been accorded its rightful place in the civic plan for the city.

They opened it with a great dinner in the huge upper waiting room dominated by its high-vaulted ceiling and its elaborate mural in stained glass of the three then-outstanding cities of the United States—New York, San Francisco and St. Louis. Chicago, by its absence, was conspicuous in the mural and there was a good deal of comment, not all of it pleasant. This fact went back and forth between the Chicago and the St. Louis papers. . . . It was the great St. Louis Fair of 1904—officially the Louisiana Purchase Exposition—that first brought America's largest station to the attention of folk from the far corners of the land. For six months they flocked to it by the thousands. They crowded its waiting rooms and its restaurants, even its huge concourse . . . found housing in the sizable hotel which always has been part and parcel of the station itself. It then only had a mere 32 tracks in its train shed, which was nearly square, approximately 600 feet in length and 600 feet in width. . . . The annex trainshed with 10 more platform tracks was added a little over 12 years ago.

UNDER the skilled direction of President P. J. Watson Jr., the Terminal Railroad Association of St. Louis has done a sweeping job in the historic passenger station, although not nearly as sweeping as Mr. Watson had hoped. At the outset he planned to so change the floor levels as to bring the great main waiting room in closer access to the concourse and the tracks. In dull seasons of travel, the fine waiting room, always slightly inaccessible, frequently has been a lonely and a deserted hall. Its vaulted roof echoed. Watson planned to popularize it by raising the concourse level a few feet and building underneath it a great garage and parking station, which also would serve as a cab stand—a facility in which the station has been deficient. The main access to the station then would be through the main waiting room and by easy ramps down to the concourse.

The war and its priority problems prevented this drastic and farseeing step. But without such radical changes Mr. Watson has accomplished wonders. A new and more compact ticket office, semicircular in shape and a model in compactness and arrangement, has replaced the old, and is blessed by every ticket seller in the terminal. . . . The Harvey restaurants remain unchanged, as does Harvey's "Miss Mary," who sells books in the Fred Harvey intellegentsia center off the lower waiting room, as no other woman in America has ever before been able to sell books. There are new floors, new decorations, new fittings. St. Louis Union Station in 1943, almost precisely 50 years after its opening, looks as spic and clean and attractive as in 1894; as if the guests had just arisen from their seats at the inaugural dinner in the waiting room. It is a great gateway for a great city.

Edward Hungerford

The renewed St. Louis Union Station includes a U. S. O. lounge (left) which was opened last October for the use of men and women in the armed services. At right is a view of the new ticket office and concessionnaires' stands. Other improvements are under way.

Photos, this page, courtesy Terminal Railroad Association of St. Louis; opposite page, by S/Sgt. R. A.

IF YOU'RE MAKING MORE MONEY

...WATCH OUT!

THIS YEAR Americans are going to make—minus taxes—125 billion dollars.

But this year, due to the war, we are going to have only 80 billion dollars' worth of goods to spend this on.

That leaves 45 billion dollars' worth of money burning in our jeans.

If each of us should take his share of this 45 billion dollars (which averages approximately

$330 per person) and hustle out to buy all he could with it—what would happen is what happens at an auction where every farmer there wants a horse that's up for sale.

We would bid the prices of things up and up and up. Instead of paying $30 for a suit we're going to pay $45. Instead of $5 for a pair of shoes we're going to pay $8.

This bidding for scarce goods is going to raise prices faster than wages. Wages just won't keep up.

So what will people do?

U. S. workers will ask for more money. Since labor is scarce, a lot of them will get it. Then farmers and business men who feel the pinch are going to ask more money for their goods.

And prices will go *still higher.* And the majority of us will be in that same old spot again—only worse.

This is what is known as Inflation.

Our government is doing a lot of things to keep prices down . . . rationing the scarcest goods, putting ceiling prices on things, stabilizing wages, increasing taxes. But the government can't do the *whole job.* So let's see what *we* can do about it.

If, instead of running out with our extra dough, and trying to bid on everything in sight, we buy only what we absolutely need, we will come out all right.

If, for instance, we put this money into (1) Taxes; (2) War Bonds; (3) Paying off old debts;

(4) Life Insurance; and (5) The Bank, we don't bid up the prices of goods at all. And if besides doing this we (6) refuse to pay more than ceiling prices; and (7) ask no more for what we have to sell—no more in wages, no more for goods—*prices stay where they are now.*

And we pile up a bank account. We have our family protected in case we die. We have War Bonds that'll make the down payment on a new house after the war, or help us retire some day. And we don't have taxes after the war that practically strangle us to death.

Maybe, doing this sounds as if

it isn't fun. But being shot at up at the front isn't fun, either. You have a duty to those soldiers as well as to yourself. You *can't* let the money that's burning a hole in your pocket start setting the country on fire.

★ ★ ★

This advertisement, prepared by the War Advertising Council, is contributed by this magazine in co-operation with the Magazine Publishers of America.

KEEP PRICES DOWN!

Use it up
Wear it out
Make it do
Or do without

Correspondence

I protest! I think the Man in the Tower is most certainly wrong when he says [May TRAINS] that the Cincinnati Union Terminal, along with others, is "the most difficult to use." Apparently he has not been through the Cincinnati Union Terminal, or he would appreciate it more. . . . The passenger can arrive by taxi or bus *inside* the terminal and go up a flight of stairs to the main concourse. If he arrives by private car, he will be let off right at the door and enter the main concourse at street level. As he enters, everything is in front of him—ticket offices, dining room, theater, magazines, and what have you. At train time he passes through the gate and goes down, either by stairs or by a gradual slope, to the platforms. What could be more convenient than that?

Ralph H. Payne, Secretary-Treasurer,
Cincinnati Railroad Club, 1228 E. McMillan St.

The "Blueprint Railroad" [June TRAINS] is not dead. A certain executive still has the idea in mind and, following the end of the war, I would not be surprised to see the thing bob up again.

John P. Connolly, 566 Colonial Ave., Westfield, N. J.

Joseph P. Sadler stated in "West Point Route" [June TRAINS] that "The famous old Civil War engine *Texas* is said to have been owned by the Western of Alabama but nothing could be found about it in the history of the road." The *Texas* was the locomotive that caught the *General* in the famous Andrews raid of the Civil War. The W *and* A to which the *Texas* belonged was the Western & Atlantic, now the main line of the Nashville, Chattanooga & St. Louis from Chattanooga, Tenn., to Atlanta, Ga. It was built and is still owned by the State of Georgia but is now known as the NC&StL because that road has a long-term operating lease.

H. E. Copeland, 4402 State St., Apt. 2, East St. Louis, Ill.

I understand that the Colorado & Southern No. 60 at Idaho Springs and No. 71 at Central City are both being taken to Denver for repairs and will then be shipped to Alaska. [These are the engines which were placed on public exhibition following abandonment of the narrow gauge.—*Ed.*]

Lt. John W. Maxwell, U. S. Army.

The editorial and R. Edwin Boothe's letter on "underdog railroads" in the May issue strike a very responsive chord in me. From the Fall of 1931 to the Spring of 1936, while attending Yale University, I traveled over 21 *different* rail routes between my home town, Lock Haven, Pa., and New Haven, Conn.

S. H. Fredericks Jr., U. S. Navy.

During my 38 years in Pullman service as conductor, traveling passenger agent, and inspector, I worked in 47 states, the District of Columbia, Canada, and Mexico. Rhode Island is the only state I failed to enter. In all, I traveled 3,186,148 miles while on duty. I made many one-train coast-to-coast round trips, including several from New York to the Portland (Ore.) fair, on which solid Pullman trains of composite car, diner and observation cars, and sleepers as needed made the round trip.

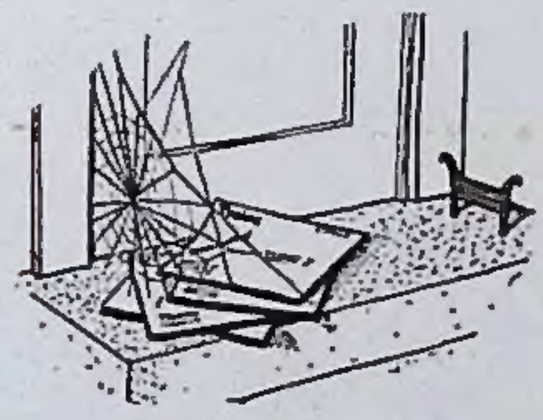
W. Paul Sweet, Traveling Passenger Agent (Retired),
Pullman Co., Washington 6, D. C.

Answers to locomotive quiz (page 41).

1, GN; 2, UP; 3, Milwaukee; 4, NYC; 5, SP; 6, PRR; 7, C&O; 8, CB&Q; 9, UP; 10, L&N; 11, Santa Fe; 12, NP.

Locomotive Dictionary

We have on hand a limited number of dictionary sections from the last *Locomotive Cyclopedia* bound as separate paper-covered books. This dictionary defines all the technical and semitechnical words used in locomotive practice, and is remarkably informative. The dictionaries are 75 cents each while they last. The complete *Locomotive Cyclopedia* is out of print.



The postoffice does not forward magazines. If you move be sure to send us your change of address before the 15th of the month, which is when the Trains mailing list is run off for the next month's mailing. After that date the magazines are packed in mail bags and on their way, and if yours is misaddressed you just won't get it unless you have left 4 cents forwarding postage with your mailman specifically for use on the issue of Trains you are expecting.

One of the most popular of locomotive books is Edward Hungerford's *Locomotives on Parade*, a history of American locomotives peppered with illustrative anecdotes such as could be told only by a man who has loved and studied locomotives all his long life. We have *Locomotives on Parade* in stock at $2.50 postpaid.

The cover photo on Trains each month wins a $5 cash award, and the inside covers and the center spread take other cash awards of $2.50 or more. These photos are selected from among those submitted for general use in the magazine.

Instead of taking a railroad vacation this Summer, put the money into War Bonds. It will buy you a lot more vacation on the vastly improved postwar railroads, and meantime it will be helping lick the Axis.

Kalmbach Publishing Co.

1027 N. 7th St. Milwaukee 3, Wis.

Trains

The Boston & Maine-Maine Central Kennebec Limited goes through Biddeford, Me., on its way to Boston from Bangor, Augusta and Portland. At Biddeford it is on the B&M.

John P. Ahrens, 508 Warren St., Brooklyn, N. Y.